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EDWARDS'S

BOTANICAL REGISTER:

OR,

ORNAMENTAL FLOWER-GARDEN AND SHRUBBERY:

CONSISTING OF

COLOURED FIGURES OF PLANTS AND SHRUBS,

CULTIVATED IN BRITISH GARDENS;

ACCOMPANIED BY THEIR

History, Best Method of Treatment in Cultivation, Propagation, &c.

EDITED

BY JOHN LINDLEY, Ph. D. F.R.S. AND L.S.

PROFESSOR OF BOTANY IN UNIVERSITY COLLEGE, LONDON,
AND THE ROYAL INSTITUTION OF GREAT BRITAIN,
VICE-SECRETARY OF THE HORTICULTURAL SOCIETY,
&c. &c. &c.

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COMPLETE IN TEN VOLUMES.

VOL. VI.

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Miss Drake del. Pub. by J. Ridgway 169 Piccadilly Jan. 1. 1843 G. Barclay sc.

TALĪNUM teretifolĭum.

Slender-leaved Talinum.

POLYANDRIA *MONOGYNIA.*

Nat. ord. PORTULACACEÆ.

TALINUM. *Adanson.*

§ 1. Stigmas or lobes of the style short, connivent. Perennial herbs, with a short thick and firm stem, and terete, subulate, fleshy leaves. Flowers in a terminal, dichotomous cyme, expanding for a single day. PHEMERANTHUS *Rafinesque.*

T. *ciliatum*; caule simplici v. ramoso, foliis aggregatis teretibus, pedunculis elongatis, paniculâ cymosâ, petalis purpureis ovato-subrotundis, staminibus 20.

T. teretifolium. *Pursh Fl. Bor. am.* 2. 365. *Lodd. Bot. Cab. t.* 819. *DeCand. Prodr.* 3. 386. *Gray and Torrey's Flor.* 1. 196.

A pretty little herbaceous plant, seldom seen in cultivation. It inhabits various parts of North America, from Texas as far north as Pennsylvania, trailing over naked rocks, its favourite place of resort.

In our gardens it is treated as a greenhouse plant, and then it forms neat patches of lively purple flowers. It is, however, rather rare.

Our drawing was made in 1841, in the garden of the Horticultural Society, where it had been raised from seeds received from Mr. Otto of Berlin.

Fig. 1. represents the calyx and stamens, magnified, the petals having been pulled off.

2

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2

STENOMESSON vitellinum.

Yolk-of-Egg Stenomesson.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDACEÆ.

STENOMESSON. *Herbert.*

S. *vitellinum*; foliis hysteranthiis obovato-oblongis 3-nerviis petiolatis margine revolutis subtùs glaucis, umbellâ 6-florâ, perianthii laciniis erectis, staminibus exsertis, coronæ dentibus obtusis indivisis.

Bulbus *placentiformis, collo constricto.* Flores *ante folia.* Scapo *spithamæus glaucus.* Pedicelli *florum breves, ovario paululum longiores.* Stamina *alternè breviora.* Stigma 3-*lobum capitatum.*

A bulbous plant from Lima, whence it was sent by John Maclean, Esq. to the Horticultural Society, with whom it flowered in February 1842.

The yellow flowers, and their general appearance, remind one of the yellow Calostemma of New Holland; only they are larger.

It is essentially distinguished from the other known species by its broad leaves, depressed bulbs, and the intermediate teeth of the cup being obtuse and undivided.

The plant flowered in a cool stove, where it had been kept warm and moist while growing, but cooler and drier while at rest.

It is among the prettiest of the Western American bulbs; but is at present extremely rare.

3

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J. Barclay sc.

ODONTOGLŌSSŬM citrŏsmum.

Lemon-scented Odontoglossum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ § VANDEÆ.
ODONTOGLOSSUM. *Kunth.*

O. *citrosmum* (Lindl. Bot. Reg. 1842. misc. 68.); pseudobulbis subrotundis compressis lævibus monophyllis, folio oblongo-ligulato obtuso racemo paulò breviore, sepalis oblongis obtusis petalisque conformibus subæqualibus, labello unguiculato reniformi basi bituberculato, columnæ alis lateralibus subtruncatis dorsaliq. rotundato denticulatis.

Although such plants as this seem as if they weakened the genus Odontoglossum, on account of their similarity in habit to Oncidium, yet in truth they rather confirm that genus by showing that although the appearance of Oncidium may be assumed, yet the main points of structure remain unaffected. One of the most important of these points is the partial parallelism of the base of the labellum with the column, and the presence of a pair of parallel raised plates at that part. This occurs in the original Odontoglossum, and runs through all the numerous species published and unpublished with which I am acquainted; and it does not occur in any Oncidium.

While however, notwithstanding its habit, this *Odontoglossum citrosmum* confirms, rather than diminishes, the propriety of separating Odontoglossum from Oncidium; it has a peculiarity of its own, which may possibly suggest to some minds the propriety of forming it and such plants as O. brevifolium and pulchellum into a separate genus, characterized by the presence of a toothed wing or membrane at the back of the anther; and the similarity of these plants in habit might seem to justify the measure. In that case the generic name of TRYMENIUM might be taken for them. I do not however

at present see the necessity of regarding them as more than a section of Odontoglossum.

It was imported by George Barker, Esq., of Birmingham, from Mexico, and given to Thomas Brocklehurst, Esq., of the Fence near Macclesfield, by whose gardener it was exhibited at one of the great meetings of the Horticultural Society at Chiswick in 1842. It has large snow-white and rose-coloured flowers, of great beauty, exhaling a delicate smell of lemons.

Fig. 1. represents the column with its three wings and the base of the lip. Fig. 2. shews the masses of pollen, their strap and gland.

Miss Drake del. Pub. by J. Ridgway 169 Piccadilly Jan.y 1 1843 G. Barclay sc.

HOVĔA racemulōsa.

Spikeletted Hovea.

DIADELPHIA *DECANDRIA.*

Nat. ord. PAPILIONACEÆ.
HOVEA. *Supra, vol.* 4. *fol.* 280.

H. *racemulosa;* foliis oblongo-linearibus sublanceolatisve suprà tenuiter reticulatis glabris subtùs tomentosis, racemis axillaribus laxis plurifloris rariùs apice foliiferis, calycis longiusculi pedicellati labio superiore maximo. *Bentham suprà,* 1842, *misc. no.* 36.

Although this cannot be said to rival such species as Hovea pungens or Celsi in the brightness of its colours, it is by no means unattractive, when well contrasted with plants whose colours are not bright enough to kill it. It belongs moreover to a set of greenhouse shrubs of easy cultivation and small size, which are well adapted for decorating the shelves of the conservatory.

It is a native of the Swan River colony, whence the seeds were obtained by Capt. James Mangles, R.N. It first flowered in the garden of Robert Mangles, Esq. of Sunning Hill.

Among the species of this genus from the East coast of New Holland is one, called Hovea ramulosa by Allan Cunningham, which approaches this very much in several respects. But that species has solitary axillary flowers, more obtuse leaves, and a still more shaggy surface. As it does not seem to have yet found its way into books, I may as well take the present opportunity of stating its characters.

H. *ramulosa* (A. Cunn. mss.) mollis, villosa, foliis oblongo-linearibus apice rotundatis suprà glabris grossè reticulatis subtùs ferrugineo-tomentosis, floribus axillaribus subgeminis

rarò in ramulos foliosos dispositis, calycis sessilis villosi labio superiore maximo.

It was found by Mr. Cunningham along the upper branches of the Brisbane River in Moreton Bay, in the year 1829.

3

Pub. by J. Ridgway 169 Piccadilly, Jan 1 1842 G. Barclay sc

5

VAN HOUTTE'S PHLOX.

Garden Variety.

For a knowledge of this remarkable plant we are indebted to M. Louis van Houtte, nurseryman of Ghent, who sent it to us in October last, in full flower; but without any account of its origin.

It is a variety of remarkable beauty, looking as if P. suaveolens had been crossed with P. caroliniana, leaving on a white ground a crimson evidence of its paternity. The appearance of the plant is beautiful, far beyond any thing yet seen in the genus Phlox; and we were almost going to say, beyond any thing among the hardy perennials in cultivation.

An approach to it was exhibited last year by Mr. Mountjoy, nurseryman of Ealing, but it was only an approach, with a much paler stain on the corolla. That, however, was very pretty; and well worth the acquisition of the lovers of gay flowers.

DENDROBIUM sanguinolentum.

Blood-stained Dendrobium.

GYNANDRIA-*MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § MALAXEÆ.

DENDROBIUM *Swartz.*

Sect. EUDENDROBIUM. Caulis teres. Folia plana. Flores membranacei patuli.

D. *sanguinolentum* (Lindl. in Bot. Reg. 1842. misc. 73.); caulibus teretibus pendulis, foliis ovato-lanceolatis, floribus gemellis, sepalis petalisque ovatis obtusiusculis patulis, labello trilobo glabro: laciniâ intermediâ retusâ nunc utrinque plicatâ; ungue concavo brevi appendice cornuformi pubescente retrorsâ aucto.

Probably there is no plant among all the species of Dendrobium now known to our gardens which is more delicately beautiful than this. Its colours too are so singular as on that account alone to render it an object of much interest; for here we have the cyanic and xanthic tints in one and the same flower. We are always prepared to find red spots on a yellow ground, or vice versâ, but it is a most unusual thing to find clear pure violet on petals the whole remainder of whose tint is yellow. In this plant, however, the combination occurs, producing a very gay and unexpected effect.

It was sent from Ceylon, to His Grace the Duke of Northumberland, by Mr. Nightingale, and flowered at Sion in August last. It has pendulous stems like those of D. Pierardi, but of a delicate purple when young; the leaves too are stained underneath and at the edges with the same colour. The flowers are as large as those of D. aggregatum, of a clear fawn colour, with the tips of the segments and lip stained with a deep rich violet. There is moreover a *scarlet* spot in the middle of the lip.

Fig. 1. represents the outline of the lip of this plant. Fig. 2. shows the form of what I take to be a variety, larger,

and having the middle scarlet spot, but destitute of the violet tips. This is not distinguishable from the other in foliage, nor in any other way than in the manner now indicated.

Both species have a strong downy tooth near the base of the lip, parallel with the surface and directed towards the foot of the column.

AGAPANTHUS umbellatus; *var.* maximus.

Large-flowered African Blue-Lily.

HEXANDRIA *MONOGYNIA.*

Nat. ord. LILIACEÆ.

AGAPANTHUS. *Botanical Register, vol. 9. fol.* 699.

A umbellatus. *Bot. Reg. l. c.*
Var. maximus ; foliis latioribus, floribus multò majoribus.

Since the days when the commerce of the Dutch revealed to Europe the vegetable riches of the Cape of Good Hope, and filled the gardens of Holland with crowds of unknown forms, the African Blue-Lily, or as it was formerly called the African tuberous Hyacinth, has been a favourite object of cultivation. It has now, however, become common, and, discarded from the gardens of the great, to their own loss, has sought refuge with humbler cultivators, with whom it still is, and we trust always will be, a cherished favourite.

We do not find in such authors as we have an opportunity of consulting, any precise information as to the favourite localities of Agapanthus. Mr. Harvey says, that one species is very common on the sides of Table Mountain, but which species, or what the kind of places it is found in, he does not state.

With regard to the species, these are so little understood that, although this may well be distinct from A. umbellatus, we have no materials for defining it, and therefore we leave it to our successors ; possibly it may be the A. multiflorus of Willdenow. Mr. Harvey says there are several species in the Cape Colony; it would be well worth any one's while to collect and compare them, so as to settle the distinctions that exist.

The accompanying drawing was made in the nursery of

Mr. Groom, of Clapham Rise, in September last. It is a beautiful plant.

Those who wish to grow these African Blue-Lilies in the best manner, should proceed with them thus:—About the end of February the plants should be fresh potted, in a mixture of rich loam, and well decomposed leaf-mould, or well rotted dung, and placed in a warm part of the greenhouse, where they will soon begin to grow freely. They will then require to be abundantly supplied with water, and about the end of May should be removed to the open air, if it is intended that they should flower out of doors. The pots should be placed in a sheltered situation, in large pans filled with water, so that one-third of the pots is immersed; or the pots may be placed by the side of a pond, and the plants treated as subaquatic, in which situation they will flower freely during the summer. If they are retained in the greenhouse during the blooming season, they must have plenty of air and water, or they will become weak, and lose that beautiful deep blue colour, which so much distinguishes them.

When they have done flowering, in the autumn, they should be gradually dried, by withholding water, and finally, when the soil in the pots has become tolerably dry, and there is danger of frost, the pots should be removed for the winter, either into a cold pit, or under the stage of the greenhouse. Or they may be placed in a cellar, but then they must be kept very dry, and should be removed from such a situation as soon as they shew signs of vegetation.

These plants will also force freely, if well supplied with moisture and bottom heat; but in that case the flowers become very pale. They are easily increased by dividing the old plant when in a dormant state. They seldom require shifting when once established, if supplied once or twice, during the growing season, with a little liquid manure.

* HYPOCALYMMA robustum.

Larger Peach Myrtle.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. MYRTACEÆ.

HYPOCALYMMA. *Flores* axillares, capitati. *Calyx* tubo campanulato, cum ovario connato, limbo supero quinquepartito. *Corollæ* petala 5, calycis fauce inserta, ejusdem laciniis alterna, breviter unguiculata, orbiculata. *Stamina* 20-30, cum petalis inserta, iisdem longiora; *filamenta* filiforma subulata; *antheræ* biloculares, longitudinaliter dehiscentes. *Ovarium* inferum, biloculare (½-biloculare); *loculis* multi-ovulatis. *Stylus* filiformis. *Stigma* capitatum (simplex). *Fructus* . . . . .——Frutices *N. Hollandiæ austro-occidentalis, foliis oppositis exstipulatis, lineari-lanceolatis, mucronatis,* floribus *axillaribus sessilibus v. brevissimè pedicellatis capitatis scarioso-bracteolatis, roseis v. persicinis.* Endl. Genera Plantarum, no. 6306.

H. robustum ; foliis lineari-lanceolatis mucronatis, floribus axillaribus brevissimè pedicellatis, capitulis submultifloris. *Endl. enum. plant.* 50.

This is one of those beautiful little Myrtaceous plants peculiar to the South-west of New Holland, which might be easily mistaken for small Almond or Peach bushes, so much are the flowers like them, and so seldom do we find bright rosy blossoms among the Myrtles.

It is a native of the Swan River Colony, and has been raised by Messrs. Lucombe, Pince & Co. of Exeter. The leaves when bruised smell very agreeably of lemon.

It is a greenhouse plant, and requires to be potted in a compost consisting of loam and heath-mould, with a small portion of silver sand. The pot must be well drained, so as to allow all noxious matter to pass off. Water should be freely

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* From ὑπο under, and καλυμμα a veil, in allusion we presume to the bracts that veil the calyx from below.

given during summer, and plenty of air at all times, except during frost, when the temperature should not be below 35°. It may be propagated by cuttings in the ordinary way.

Fig. 1. represents a flower-bud, with the bracts at its base. Fig. 2. shews a section of the flower, made perpendicularly through the ovary; the partition that divides the ovary into two cells, is seen to rise only half the height of the cavity, and to bear an ovule and half on each side, one and a half more being removed from each side; hence the ovary is half bilocular, with three ovules in each cavity, two inserted near the apex on each side, and one in the middle near the base; this is better shewn in fig. 3. which is a transverse section near the apex of the cavity of the ovary.

CATASETUM planiceps.

Flat-headed Catasetum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ § VANDEÆ.
CATASETUM. *Botanical Register, vol.* 20. *fol.* 1667.

C. *planiceps;* sepalis petalisque ovatis conniventibus, labello carnoso galeato rotundato compresso apiculato indiviso margine serrato.

Notwithstanding our unwillingness to add to the doubtful species of this strange and changeable genus we can hardly hesitate about regarding this as new. It is true that its habit is that of *C. maculatum, tridentatum,* and *semiapertum,* from the second of which it differs in its serrated lip, from the first and last in its lip not having the edges incurved, and from all in the singular truncate form of this helmet-shaped organ, which is flattened from front to back and not laterally.

It is a native of the Spanish Main, whence it was imported by Messrs. Loddiges, with whom it flowered in June 1841. It is the No. 934 of their catalogue.

It may be cultivated in a similar way to the other species; by being potted in mossy turf and potsherds mixed with some small pieces of wood. Like other fleshy-stemmed Orchidaceæ, this requires three seasons, namely, that of growth, of flowering, and of rest. In spring, while in a vigorous state, plenty of water and a humid atmosphere is requisite, at a temperature not less than 70° at night, nor yet above 80° in day, and shaded during sunny weather. As the flowering season advances, the water should be diminished gradually; and in winter, when the plant is in a dormant state, withheld altogether for a few weeks, and the temperature not allowed to rise above 60° or to fall below 50°.

* VRIESĬA psittacīna.

Parrot-flowered Vriesia.

HEXANDRIA *MONOGYNIA.*

Nat. ord. BROMELIACEÆ.

VRIESIA. *Sepala* 3, convoluta, æqualia, petalis apice revolutis breviora. *Squamæ* cuique petalo 2, semiadnatæ, indivisæ. *Stamina* exserta; 3 libera petalorum basi inserta, 3 inter petala inserta iisque basi connata; antheræ lineares, planæ, posticæ. *Ovarium* semi-inferum, conicum; stigma trilobum, lobis convolutis et sinuatis villosis.——Folia *plana erecta.* Flores *distichi, distantes,* bracteis *magnis, canaliculatis,* coloratis.

Vriesia *psittacina;* foliis oblongis acutis basi dilatatis, sepalis corollâ parùm brevioribus, staminibus exsertis.

Tillandsia psittacina. *Hooker in Bot. Mag. t.* 2841.

Although the limits of the genera of the Bromeliaceous order are much better defined than they were a few years ago, there are no doubt some distinct groups still concealed among the little known species crowded together under the name of Tillandsia. The present instance we conceive to be one of them.

Although referred to Tillandsia this has neither a superior ovary, nor the scaleless petals that are essential to that genus. On the contrary, it evidently belongs to Endlicher's second section of the order, at present consisting of Pitcairnia and Brocchinia only. From the latter it differs in its revolute scaled petals, and distinct filaments; from the latter in its distinct sepals, and regular revolute petals. From both its large channelled coloured bracts distinguish it at first sight.

Along with it will have to be placed the *Tillandsia heli-*

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* We have taken the opportunity of thus commemorating the merits of Dr. W. de Vriese, Professor of Botany at Amsterdam, an excellent Botanist and Physiologist.

conioides of Kunth, a plant with the same peculiar habit and, as it appears from the description given of it by that author, the same peculiarities of structure; but differing in its leaves being narrower, awl-shaped at the point, the bracts flesh-coloured, and the flowers white, or nearly so.

This is an extremely pretty stove plant, for which we are indebted to C. B. Warner, Esq. It is said by Sir W. Hooker to be a native of the neighbourhood of Rio Janeiro.

Fig. 1. represents a petal, with the two scales at its base; and it also shews how one of the stamens is inserted into the very base of the petal, between the scales, while the petals themselves are united by the stamens that are intermediate to them. Fig. 2. shews a section of one of the scales, and indicates that they are adherent to the petals for more than half their length. Fig. 3. is a section of the ovary.

In cultivation this requires to be potted in leaf mould, with a quantity of potsherds for drainage. Plenty of water should be given during the summer months, but sparingly in winter. Or it may be grown suspended in a wire basket, like an Orchidaceous plant. It is propagated by suckers.

LILIUM testaceum.

Yellow Japan Lily.

HEXANDRIA *MONOGYNIA.*

Nat. ord. LILIACEÆ.
LILIUM. Botanical Register, vol. 2. fol. 132.

Sect. *Martagon.* Perigonii foliola sessilia, revoluta, sulco nectarifero distincta. *Endl. gen.* 141.

L. *testaceum*; foliis sparsis lanceolatis, floribus cernuis terminalibus pedunculis rigidis brevioribus, perigonii foliolis intùs læviusculis v. parùm papillosis staminibus multò longioribus.
L. testaceum. *Bot. Reg.* 1842, *misc.* 51.

With the exception of the short notice in our work, last year, in the place above quoted, we find no account of this plant, our figure of which was made in the nursery of Messrs. Rollissons, of Tooting, in June last.

It is said to be a Japanese species, and although very inferior in point of beauty to L. speciosum, Thunbergianum, and their varieties, is a plant that well deserves to be cultivated.

It is a handsome frame or half-hardy bulb, growing best when planted out in a cold pit, where the bulbs can be kept dry during winter.

It should be planted in the pit in autumn, or very early in spring, and when once established should not be afterwards disturbed, for all these plants suffer injury by removal, in consequence of the loss of their tender perennial fibres, and by the bulbs becoming dry.

Whether planted or potted, the bulbs should be placed rather deep, because they make fibres above the bulb as well as below it; and when they *must* be shifted it should be done while they are dormant. The greatest care should be taken during the operation of turning them out of the pots, and

removing the crocks from amongst the fibres; without shaking off much of the soil. They should be then fresh potted in a mixture of sandy peat, loam, and a small portion of well rotted dung or leafmould, with ample drainage. They should afterwards be kept dry till they begin to grow, when water should be given, but rather sparingly at first. Much damage is done to fresh potted bulbs by keeping them damp directly after fresh potting, and while in a state of rest.

It is easily increased by separating the scales of which the old bulb is composed, which are to be placed in pots filled with very sandy soil and exposed to a gentle heat. They will be two or three years before they flower.

The plant grows from one to four feet high, according to the strength or size of the bulbs and flowers, from July to September, according to the manner in which it is treated.

ONCIDĬŪM bicallōsūm.

Two-warted Oncidium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ § VANDEÆ.
ONCIDIUM. Swartz.

EUONCIDIUM; Heteranthium; Folia plana; Pentapetala; Micropetala; labello pandurato; i. e. medio constricto basi angustiore. *Sertum Orchidaceum sub t.* 48.

O. *bicallosum;* bracteis ovatis membranaceis obtusis, sepalis liberis obovatis concavis, petalis oblongis obtusis, labelli lobis lateralibus abbreviatis intermedio maximo transverso emarginato subcordato, cristâ bicallosâ, tuberculis distantibus uno ante alterum posito rugosis subtrilobis, columnæ auriculis linearibus falcatìm recurvis. *Lindl. in Bentham pl. Hartw. p.* 94.

Among the numerous fine things found in Guatemala by Mr. Skinner, there are not many which are more deserving of cultivation than this plant, which has so much the habit of *O. Cavendishianum* as to seem a mere variety of it, although in reality quite a distinct species. It was also met with by Mr. Hartweg. The flowers are fully two inches in diameter, which is four times the size of *O. Cavendishianum;* they appear in a dwarf erect raceme, not panicle; they are of a rich yellow, with the sepals and petals bordered with cinnamon colour; the labellum has two very small lateral lobes, and for its crest it has a pair of distinct tubercles, the posterior double, the anterior 3-lobed, and the two separated by a considerable space. The flowers are moreover slightly scented, which is not the case with *O. Cavendishianum.* Many plants are doubtless in the country; but no one has succeeded in flowering them except Mr. Bateman, who sent a fine specimen to a late meeting of the Horticultural Society.

The figure at the corner of the plate shews the peculiar arrangement of the warts on the crest of the lip. Besides

which it indicates the unusual form of the narrow incurved wings of the column, and a thickening of the margin of the lip near its base.

It is a stove plant, and requires to be grown in a mixture of turfy peat and potsherds; so that the whole may be efficiently drained. A smaller pot, inverted in the one in which it is potted, allows the warmth to rise through the soil, and makes the whole lighter than when it is drained at the bottom with potsherds. It may also be grown suspended from the rafters of the house like other air plants, provided it is kept moist enough during the growing season. Like all these plants it requires a humid atmosphere, a liberal supply of water when growing, and partial shade during bright sunshine in summer. A night temperature of 60° in winter and 70° in summer will be amply sufficient for its growth.

169 Piccadilly March 1 1843.

J Barclay sc.

* PHILIBERTIA grandiflora.

Large-flowered Philibertia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. ASCLEPIADACEÆ.

PHILIBERTIA. Humboldt et Kunth. Calyx 5-partitus. *Corolla* urceolato-rotata, sinuato-quinqueloba, lobis acutis denticulis interjectis; *tubus* brevis, mediante toro carnoso apici quandoque annuliformi et undulato columnæ stamineæ adnatus. *Corona staminea* simplex, 5-phylla ; foliolis carnosis summo columnæ insertis integris. *Antheræ* membrana terminatæ. *Massæ pollinis* clavato-cylindraceæ, ad apicem ferè affixæ. *Stigma* brevissimum, v. breviter rostratum, apice biapiculatum.——Frutices *volubiles.* Folia *opposita, basi cordata.* Umbellæ *interpetiolares.* Hooker & Arnott, Journal of Botany, 1· 290.

P. *grandiflora* ; undique tomentosa, foliis acuminatis subundulatis basi altè cordatis, umbellis laxis multifloris, coronæ stamineæ lobis rostratis depressis.
P. grandiflora. *Hooker in Bot. Mag. t.* 3618.
P. gracilis. *Don* fide *Steudel.*

This pretty twining plant is a native of Buenos Ayres, or rather of Tucuman, whence its seeds were originally sent to the Glasgow and Glasnevin Botanic Gardens by Mr. Tweedie. It varies a good deal in the colour of its flowers and in the quantity of down that covers it; in wild specimens it soon becomes woolly; but these differences do not appear to be specific. In respect of colour, the variety now represented and that with pale yellow flowers, in the Botanical Magazine, may be taken as the two extremes.

The *Philibertia gracilis* of the Gardens has been referred to this species by Steudel, and with reason. It is clearly no more than a variety of *P. grandiflora.*

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* J. C. Philibert, after whom this genus has been named, was the author of an Introduction to Botany published in 1799, of a Botanical Dictionary dated 1802, and of some other elementary books.

P. Gilliesii, a species from Mendoza, not yet that we know of in cultivation, is a much smaller plant, either smooth, or with an exceedingly short close down, and with the base of the leaves almost truncated, instead of being deeply heart-shaped.

The accompanying drawing was made in the Nursery of Messrs. Rollissons, in August 1838. The same individual had flowers of different colours, all however sweet-scented.

A pretty slender greenhouse creeper, well adapted for training up the rafters of the greenhouse, or over ornamental trellis-work affixed to a pot.

This, like most other plants belonging to the order Asclepiadaceæ, succeeds best when cultivated in friable loam and sand; and if the loam is rather poor, a little leaf-mould may be added. The soil when used should not be sifted, but merely broken fine and mixed with the hand. The pots should be well drained, as the plant requires to be kept nearly dry during the season of rest.

When the plants begin to grow in the spring, they should be fresh potted and cut back to the previous growth; being afterwards placed in a gentle bottom heat for a few weeks, and having the supply of water increased. During the whole period of their progress, they should be kept in a rather moist atmosphere, as they are subject to the attacks of the red spider.

This plant is easily increased by cuttings treated in the ordinary way, and it flowers freely during the summer and autumn.

When it has done flowering, it should be allowed to rest, by gradually withholding water until the soil in the pots becomes tolerably dry. The pots should then be kept in the warmest and driest part of the greenhouse during the winter.

INDIGOFĔRĂ stachyōdĕs.

Long-spiked Indigo.

DIADELPHIA *DECANDRIA*.

Nat. ord. LEGUMINOSÆ, § PAPILIONACEÆ.

INDIGOFERA. *Botanical Register, vol.* 2. *fol.* 104.

I. *stachyodes;* frutescens, ramis pubescentibus angulatis, foliis utrinque dense pubescentibus 18-22-jugis: foliolis linearibus acutis margine recurvis, racemis erectis axillaribus sessilibus foliis subæqualibus, bracteis pilosis alabastris longioribus, calycibus cyathiformibus, ovario 7-ovulato.

Among the crowd of species now found in the genus Indigofera it is not easy to say whether this is new or not; we believe however that it may be so considered, although we are in ignorance of its fruit.

Its seeds were collected in Bhotan, one of the independent states in the North-east of India, by W. Griffith, Esq., at the height of 4000 feet above the sea, and sent to Richard Horsman Solly, Esq., by whom they were presented to the Horticultural Society. It flowered in the Gardens at Chiswick, in September 1840.

Fig. 1. represents the calyx and stamens; fig. 2. the ovary of this species.

A handsome hardy greenhouse shrub, growing readily in a rich open soil, chiefly composed of sandy loam, with a little leaf-mould.

It is easily increased by cuttings of the young wood, partially matured at the base, placed in sand, with a little bottom heat. The plant, when in good health, flowers during a greater part of the summer.

* BECĬŪM bicŏlŏr.

Two-coloured Becium.

DIDYNAMIA *GYMNOSPERMIA.*

Nat. ord. LABIATÆ.

BECIUM. Bot. Reg. 1842, *misc.* 44. *Calyx* bilabiatus; labio superiore dilatato decurrente inferiore truncato pilis brevissimis densè ciliato apice biseto. *Corolla* bilabiata, tubo recto calyce longiore intus pubescente, labiis æqualibus superiore 3-lobo laciniâ mediâ fissâ, convexo apice et margine revoluto, inferiore oblongo concavo. *Stamina* libera, longissima, declinata, ante anthesin cum stylo circinata; suprema basi dilatata villosa inferiora lævia filiformia; antheræ ovatæ, obtusæ, glabræ. *Ovarium* disco 4-dentato omnino immersum. *Stigma* 2-lobum laciniis subulatis.

B. bicolor. *Lindl. l. c.*
Ocymum grandiflorum. *L'Herit. Stirp.* 89. *t.* 43.
O. abyssinicum. *Hort. Par.* fide *Benth.*
O. filamentosum. *Forsk. fl. Ægypt. Arab.* 100. *Bentham Labiat. p.* 8.

Frutex *pubescens.* Folia *ovato-lanceolata, serrata, impunctata.* Verticillastri *subbiflori, spicati, bracteis cordatis undulatis acuminatis deciduis coloratis calyce longioribus.* Corolla *alba venis lilacinis.* Stamina *lilacina.*

"From among some Abyssinian seeds sent to the Horticultural Society, from Paris, has been raised a plant of a genus of Labiatæ, which does not appear to be described. It is a shrub with downy stems, ovate-lanceolate, serrated, slightly petiolated leaves, and verticillasters of beautiful flowers arranged in short spikes. The calyx has a broad upper lip, like that of an Ocymum, the lower lip is deep, truncate, bordered with a close fringe of white hairs, and terminated in front by a pair of feeble teeth. The corolla is large, white, with lilac veins, and nearly an inch long. The upper lip is 3-lobed, with the middle lobe split at the point, and the points of all rolled back; the lower lip is of about the same length, oblong and concave. The stamens are four, declinate, bright violet, and

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* From βηκιον, one of the names assigned by Dioscorides to the Sage, which this plant much resembles.

about an inch long. The anthers are ovate, with a distinct pair of lobes attached to rather a convex connective. The ovary is almost entirely buried in a fleshy 4-lobed disk ; the style is long, violet, follows the direction of the stamens, and ends in a stigma with two equal subulate lobes. Both the style and filaments are twisted spirally before the corolla expands."

"This plant evidently belongs to the Ocymoideous Labiate plants, but does not agree with any of the published genera. Its singular calyx seems by itself to mark it sufficiently, independently of which the plant differs from Plectranthus and its allies in the equal size of the two lips of the corolla ; and from Ocymum and its allies in the long declinate stamens, distinctly bilabiate corolla, and whole habit."

Such was the view we took of this plant some months ago. Since that time it has been suggested to us by Mr. Bentham that the plant is very near Ocymum filamentosum, and upon turning to the descriptions of that species we find them so much alike, that we cannot doubt their belonging to the same genus if not the same species. It is not however quite certain as to the latter point, because Mr. Bentham describes his plant with appendages to the longer pair of anthers, of which appendages we have no trace in our plant.

Be this however as it may, we regard Becium as distinct from Ocymum for the reasons formerly given.

Fig. 1. represents the remarkable calyx ; 2. a portion of the corolla with the 4 stamens ; 3. the pistil, having its ovary plunged in a lobed disk.

It is a half-hardy plant ; but, coming from a warmer climate than many other kinds which we commonly find in greenhouses, it will not bear such a great degree of cold in winter. It will flower freely in the autumn and winter in a temperature of from 40° to 45°, and is adapted for conservatories which are kept about this temperature. When potted in any light common soil, it grows freely and is very easily multiplied by cuttings.

OXYLŎBĬUM capitātūm.

Headed Oxylobium.

DECANDRIA *MONOGYNIA.*

Nat. ord. Leguminosæ, § Papilionaceæ.

OXYLOBIUM. Andr. Calyx semi 5-fidus, bilabiatus, labio superiore bifido, inferiore tripartito. *Corollæ* vexillum alis longius, rotundatum, breviter unguiculatum; *alæ* oblongæ; *carina* ovato-oblonga subrecta, obtusa, alas æquans. *Stamina* libera, filamentis glabris. *Ovarium* subsessile, densè pluriovulatum. *Stylus* filiformis, incurvus. *Stigma* terminale, tenue vel capitatum. *Legumen* ovatum, acutum, sessile, coriaceum vel vix membranaceum, turgidum, uniloculare, valvulis intùs lævibus. *Semina* estrophiolata. Fruticuli *vel* suffrutices *Australasici.* Folia *verticillata aut sparsa, simplicia, integra, subtùs sericea.* Stipulæ *minutæ vel nullæ.* Inflorescentia *racemosa, terminalis vel axillaris.* Bracteæ *parvæ.* Flores *lutei vel crocei.* Discus *staminifer plerumque brevissimus.* Ovarium *villosissimum.*——Genus characteribus et habitu *Callistachyæ* valde affine, et nonnisi leguminibus absque septis, disco parvo, et seminibus estrophiolatis distinguendum. At in plerisque Leguminosis septa transversalia dum extant valde fugacia et incerta sunt, nec in *Loteis* characteres solidos præbent. Character e disco sumtus vix majoris ponderis est, cum a sola majori minorive ejusdem organi evolutione pendent. Strophiolarum defectum in solo *O. cordifolio* observavi in cæteris speciebus semina matura non vidi. *Bentham Commentationes, p.* 6.

O. *capitatum;* foliis inferioribus obovatis superioribus oblongis linearibusve mucrone recurvo, racemis densis capitatis paucifloris foliis brevioribus. *Bentham in plant. Hugel. p.* 28.

Suffrutex *basi procumbens.* Rami *teretes glabri vel apice sericei.* Folia *alterna vel opposita, inferiora vix semipollicaria, late obovata vel obcordata, superiora* 1-2 *pollices longa, omnia apice obtusa vel emarginata et mucrone recurvo aucta, supra reticulata glabra, subtus, præsertim juniora, pilis adpressis sericea, nervo medio valido, basi in petiolum brevissimum angustata.* Stipulæ *setaceæ nigræ, petiolo longiores.* Racemi 6-10-*flori axillares et terminales.* Pedicelli *brevissimi ebracteati.* Calyces *campanulati, dense sericei, tubo labiis parum breviore.* Petala *et* Stamina *prope basin calycis inserta.* Carina *alis vix brevior.* Stylus *glaber uncinatus acutus,* stigmate *subobliquo capitato.* Legumen *subsessile lignosum, ovoideum, utrinque acutum, calyce vix duplo longius, extus dense villosum, intus nudum.*? Bentham l. c.

A greenhouse shrub of some beauty, imported from Swan River by Messrs. Lowe and Co. of Clapton, with whom it flowered in October last.

It differs in nothing from the wild specimens in our possession, except that the flowers are less numerous in the axils, and therefore do not present an appearance to justify the name of capitate so much as they do.

Fig. 1. represents the ovary, with the side removed to shew the three pairs of ovules.

It should be potted in light heath soil, mixed with a little leaf-mould and sand; the pot must be efficiently drained. When grown in the greenhouse, and subject to the same treatment as the generality of these plants, it succeeds admirably, and remains in bloom for several months in summer and autumn. Like all plants of this kind, it requires an abundant supply of water during the growing season; but that quantity must be reduced at other times. It is easily multiplied by cuttings and seeds.

DENDROBĬŪM rhombĕūm.

Rhomb-lipped Dendrobium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § MALAXEÆ.

DENDROBIUM. *Botanical Register, vol.* 7. *fol.* 548.

D. *rhombeum;* caulibus teretibus foliosis, foliis lanceolatis acutis, racemis brevibus 4-floris, sepalis ovalibus obtusis, petalis duplò latioribus ovatis, labello rhombeo undulato acuto medio pubescente, columnâ utrinque tuberculatâ pone basin cornu deflexo auctâ, antherâ pubescente.

This pretty species has much general resemblance to D. aureum, from which however it differs in having smaller blossoms, a labellum without serratures, and the flowers in short racemes instead of pairs.

It is a native of Manilla, whence it was sent by Mr. Cuming to Messrs. Loddiges, in whose catalogue it stands as no. 319, and with whom it flowered in August last.

The imported specimen is less vigorous than it may be expected to become hereafter, in which case the number of flowers will probably be augmented.

Here, as in some other cases, the column is furnished, near the base, with a deflexed horn lodged in a niche just above the insertion of the lip. This is a remarkable process, and is represented at fig. 1. of the accompanying plate; its nature requires to be investigated.

Like Maxillaria, the whole genus Dendrobium, with those which are near it, requires a careful revision; but in the absence of more complete materials from the Indian islands, and especially of Dr. Blume's Java species, it seems premature to undertake the operation.

PERISTĔRIA Humboldti.

Humboldt's Peristeria.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ. Div. MAXILLARIDÆ.

PERISTERIA. Botanical Register, vol. 23. *fol.* 1953.

P. *Humboldti;* racemo elongato pendulo multifloro, calyce patulo, sepalis oblongis concavis obtusis, petalis rhombeis obtusis planis minoribus, labelli inflexi hypochilio carnoso oblongo concavo, metachilio bilobo laciniis erectis cuneatis carnosis margine inferiore valdè incrassato medio appendice bilobâ carnosâ divaricatâ utrinque bidentatâ aucto, epichilio unguiculato canaliculato apice dilatato truncato, columnâ utrinque in marginem rotundatum alatum productâ, stigmate et columnæ dorso villosis, caudiculâ lineari, glandulâ lunatâ.

Anguloa superba. *Humboldt, Bonpland & Kunth, nov. gen. & sp. pl.* 1. 343. *t.* 93. *Lindl. Gen. & Sp. Orch. p.* 160.

For this noble plant, which has a pendulous raceme a couple of feet long, we are indebted to John Wilmore, Esq., of Oldford, near Birmingham, who imported it from Porto Cabullo, in the province of Venezuela, about three years since. It flowered for the first time in March, 1842, and in April was exhibited to the Horticultural Society where it was distinguished by a silver medal. In many respects it has the habit of Peristeria Barkeri, but the leaves have longer footstalks.

When the genus Peristeria was founded nobody suspected that the long sought Anguloa superba of Humboldt could belong to it; still less did we imagine, when this noble species was sent from Birmingham, that it could be the very same. Nevertheless, upon attentively considering Humboldt's figure, no doubt can be entertained of the fact; or that Anguloa superba is nothing more than this Peristeria with the raceme made to grow erect instead of pendulous. The plant of that great traveller is described as an inhabitant of

trees in the temperate parts of the province of Tumbez, near Zaruma, in Peru, and a village called Catacocha; it was also found cultivated in the gardens of Loxa, at an elevation of between 6 and 7000 feet above the sea. Its Spanish name is said to be *Periquito*.

Upon comparing our plant with the original figure of Anguloa in the Flora Peruviana it is obvious that it cannot be referred to that little known genus, one of the most distinctive characters of which is having what Ruiz and Pavon call a chrysalis-shaped lip (that is, we presume, a lip rolled up in the form of a chrysalis) *seated on a long stalk;* by which circumstance in particular it is distinguished from Maxillaria.

Thus it appears that neither of Humboldt's Anguloas belong to the genus; *A. superba* being this Peristeria Humboldti, and *A. grandiflora* bring Stanhopea insignis. With respect to Pöppig's *Anguloa squalida*, the figures of this author are so bad that it is difficult to say what it is; it may really be an Anguloa.

Fig. 1. represents a side view of a lip and column; 2. the lip seen from above: 3. the column in half-face, the lip being cut off.

G. Barclay sc.

CAMPANULA Lœflingii.

Lœfling's Bellflower.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CAMPANULACEÆ.

CAMPANULA. *Botanical Register, vol.* 3. *fol.* 237.

C. *Lœflingii;* caule ramosissimo multifloro angulis scabriusculo, foliis crenulatis inferioribus ovatis reniformibus v. rotundo-cordatis, superioribus ovatis amplexicaulibus, calycis glabri tubo obconico, lobis longè acuminatis patulis corollâ subbrevioribus, capsulâ obconicâ nervis eminentibus. *Alph. DeCand. Monogr. Camp. p.* 335. *Brotero Phyt. Lusit. p.* 41. *t.* 18.

C. Broussonetiana. *Römer & Schultes syst. veg.* 5. *p.* 104.

A beautiful little annual, found wild in sandy places all over Portugal, also near Madrid, and in the country round Mogador. M. Alphonse DeCandolle observes that it has the habit of C. patula, but differs in being more branchy, in having broader and less acute leaves, in its annual root and deeply furrowed capsule. The latter is indeed remarkable; fig. 1. represents a transverse section of it; the three carpels of which it is composed adhere only by the middle, a circumstance by no means common among plants with an inferior ovary, unless in the Umbelliferous order.

The accompanying drawing was made in the garden of the Horticultural Society in July last.

A pretty little half-hardy plant, growing from six to nine inches high, and requiring a light rich sandy soil. The seeds should be sown either in the month of August or March, and treated in the same way as Rhodanthe Manglesii, or similar half-hardy annuals. If sown in the autumn it should be potted singly, and kept in small pots placed in a dry situation free from frost during the winter—when sown in the spring they may be kept in a cold frame, but where

they have plenty of air, as the plants are very delicate, and are apt to damp off. The autumn sown plants will flower about the end of May, those raised in the spring not before the middle of July. They continue a long time in flower.

It may be grown in the open border, if planted in a warm and dry situation, after the danger of the spring frost is over.

1843.

G. Barclay sc

* CENTRADENĬA rosĕa.

Rose-coloured Centradenia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. MELASTOMACEÆ.

CENTRADENIA. G. Don. Calyx tubo subtetragono-campanulato, libero, limbi quadripartiti laciniis late triangularibus, acutis. *Corollæ* petala 4, calycis fauci inserta, ejusdem laciniis alterna, obovata. *Stamina* 8, cum petalis inserta, alterna iisdem opposita minora; *antheræ* ellipticæ, uniporosæ, majores connectivo in calcar elongato-cuneatum, minores in appendicem glandulæformem productæ. *Ovarium* liberum, vertice setarum verticillo simplici, quadriloculare, loculis multiovulatis. *Stylus* brevis; *stigma* subcapitatum. *Capsula* calyce vestita quadrilocularis, loculicide quadrivalvis. *Semina* plurima, clavato-elliptica, echinata, umbilico basilari.——Suffrutex *mexicanus;* ramis *tetragonis, pilosis,* foliis *oppositis, altero minimo, altero multo majore, ramum ex axilla explicante, oblongo-lanceolatis, acutis, valde inæquilateris, integerrimis, ciliatis, membranaceis, triplinerviis,* racemis *axillaribus paucifloris.* Endlicher Genera, no. 6178.

C. *rosea;* foliis ovato-lanceolatis valdè inæquilateris, racemis subcorymbosis terminalibus foliis supremis longioribus, petalis ovario duplò longioribus.

A pretty greenhouse half shrubby plant, introduced from Mexico by Messrs. Lucombe, Pince, and Co., Nurserymen of Exeter, by whom it was sent in flower to the Horticultural Society in January last.

When allowed to blossom quietly in a cool greenhouse it forms a deep green bush, studded all over with gay flesh-coloured stars; but as the petals easily fall, the plant does not bear travelling well.

It is a soft-wooded species, growing a foot or so high in sandy peat, and striking readily from cuttings. As far as we

* Apparently thus called in allusion to the glandular appendage of the anthers; from κεντρον a spur, and αδην a gland.

can judge from an experience of a few weeks it seems to require a sunny station, but not a dry atmosphere.

Mr. Bentham has pointed out its near affinity to the Rhexia inæquilateralis of Schlechtendahl, afterwards called Plagiophyllum by him, and Centradenia by Don. Upon turning, however, to an authentic specimen of that plant, we find it different in some respects: its leaves are much larger and thinner, its flowers appear to be smaller, and are arranged in little terminal racemes much shorter than the leaves. Neither can this be the Plagiophyllum grandifolium of Schlechtendahl, which is described with leaves as much as six inches long.

One of the most curious circumstances connected with this plant is the constant abortion, and frequent loss, of one of its two opposite leaves. This tendency to abortion always alternates along the branches, so that if the first imperfect leaf happens to be on the right of the branch, the next is on the left, and so on. The smaller leaves readily fall off, and thus the others appear to be alternate, as is in fact shewn by the artist who prepared the accompanying drawing.

Fig. 1. represents a larger stamen; 2. a smaller; 3. the upper end of the ovary, style and stigma.

CROCUS insularis.

Corsican Crocus.

TRIANDRIA *MONOGYNIA.*

Nat. ord. IRIDACEÆ.

CROCUS. *Cormus* annuus tunicarum vaginacearum et foliacearum basibus circumnotatus, *folia* sublinearia dorso bicanaliculato costato, *scapi* 1-5 involucrati (vel involucro obsoleto nudi) trigoni uni- (rarò bi-) flori vaginis inclusi, *spatha* tubata (vel rariùs fissa tubum simulans) intus bracteata (vel bracteâ obsoletâ ebracteata) *germen* subcylindrico-subovale, *tubus* cylindricus fauce ampliatâ, *limbus* regularis, *filamenta* ori ipsi vel infra faucem tubi inserta, *antheræ* connectivo subdorsali superne minore erectæ sagittatæ loculis a vertice sublateraliter scissis, *pollen* aureum, *stylus* gracilis superne trilobus (lusu interdum 2-4-lobus) stigmatibus sensim dilatatis subtruncatis vel fimbriato-plicatis vel pauci- multi-fidis, *capsula* chartacea oblonga trigona apiculata trivalvis trilocularis reflexè dehiscens, *semina* raphe rugosâ subsphærica testâ durâ colore brunneo, pallescente, rufescente vel rufo-purpurascente. Observ. *Tunicæ vaginaceæ subtruncatæ vaginarum 3-9 extrafoliacearum, foliaceæ sæpe longè apiculatæ foliorum sub-12, bases sunt inflato-tubatæ; foliaceæ persistunt et sæpius vaginacea interior, exteriores humiditate sæpe depereunt; zona radicalis (i.e. fibras radicales emittens) unica est inter tunicas vaginaceas (ni fallor, semper inter interiorem et interiori proximam) sita; vaginæ extrafol. cormo futuro inferne, folia gradatim altiùs, diversis in diversis speciebus spatiis, basi inflato-tubatâ inseruntur. Habitant intra mare Caspium et Atlanticum gradusque, quoad novimus, latitudinis terrestris 35 et 49.* W. H. Vide Bot. Mag. 67. 3861.

C. *insularis;* c. tun. vag. interiore fibris confertis parall. sup. retic. confluentibus infra demum liberis, foliac. exter. læviore paullum infra vel supra med. affixâ, scapo involucrato, spathâ plerumque uniflorâ ebracteatâ, fl. verno tubi longitudine variabili limbo ¾-1½ unc. vel infra lilacino sepalis extùs plùs minùs lutescentibus vel pallidè stramineis plùs minùs plumeo-3- (rar. 5- vel 1- vel e-) striatis, fauce lævi pallidiore (*nunquam luteâ*) fil. albis lævibus infra faucem insertis, antheris stylo coccineo subæq. stigm. simplicibus fimbriato-truncatis vel pluries incisis, germine striato superne purpureo, seminibus badiis rhaphe et chalazâ pallidis, foliis angustis lævibus suberectis, canaliculis enervibus vel uninervibus. Variat *fibris plùs minùs reticulatè confluentibus, præsertim florum magnitudine et sepalorum striis ac colore exteriore, stigmatibusque ferè integris vel pluries incisis suberectis, vel reflexo-patulis. In Corsicâ, orientem versùs præcipuè, et in Sardiniâ; quoad vidi, unigemmatus.*

Var. 1. *major;* limbo sesquiunciali.

Var. 2. *medius;* limbo circiter unciali, tubo interdum valde elongato.

Var. 3. *minimus;* C. minimus, *Decand.* limbo ¾ unc. Vidi etiam specimen magis pusillum prope Ajaccio lectum limbo vix semunciali.

Var. 4. *geminiflorus;* tubo fortiori involucro geminifloro, spathâ interdum sed rarò loratè bracteata. *Var. rara in monte Pigno*, tun. vag. ext. tenuibus membranaceis, interiore fibr. parall. superne confluentibus prope basin aff. foliac. sup. med. fibris confertis confluentibus, proximâ altiùs, tertiâ summo cormo aff. *C. versicolori* aliquantulum approximatus.

C. *insularis;* Gay Bull. de Fer. 15. 221. Bot. Mag, 3871. p. 2. 3954. p. 2.
C. *minimus;* Dec. Red. Lil. 2. 81. *quoad. var. minimam.*
C. *corsicus;* Vanucci Tabl. Top. Bast. 1838. W. H.

Many bulbs of this pretty and variable Crocus were sent to Spofforth, in 1840 and 1841, at my request, by Mons. Palmedo, the British Consul at Bastia, having been procured through his kind offices by Signor Romagnuoli from Turiani, and the Bocca di San Antonio, three or four leagues from Bastia, from Corte, Mount San Lionardo, Pigno, Capo Corso, and the Torre di Seneca. The greatest pains were taken to discover the C. minimus of Decandolle; it is certainly one of the smaller varieties of insularis, which name, given by Mons. Gay, though posterior, must be preserved to the species, because minimus is only applicable to the smaller varieties. The species, which has sometimes a faint smell of primrose, approaches most nearly to the Italian C. suaveolens, from which it may be distinguished, in all its varieties, by the absence of yellow in the throat, which is deep in both Suaveolens and Imperatonianus. The absence or presence of yellow in the throat seems to be an invariable feature in Croci. Insularis produces usually only one shoot and flower, and no bract; but the fourth rare variety found on M. Pigno and M. d'Oleastro, approaches to C. versicolor, by a two-flowered involucre, and sometimes, though rarely, a lorate bract, and the leaf one- (if not two-) nerved; but it conforms too closely with its compatriots in other respects, to be separated as a species. They grow on the hills of schist, (talq schisteux décomposée, *Romagn.*) and are rare in the W. of the island. According to Mons. Gay they extend into Sardinia. The genus reaches from the Atlantic to the Caspian; the roots of the Pyrenees in Aquitania, Cevennes, the Swiss Alps, the Danube to about Trajan's bridge, the high ground of S. Podolia, in lat. 49, that N. of Odessa, Tauria, and Caucasus to the Caspian Sea form its northern limits. Tangiers, Malta, Cyprus, Crete, and Aleppo are the lowest ascertained S. limits of the race, about lat. 35. I cannot ascertain whether it extends to the high grounds near Damascus; nor have I been able to learn where or by what geological formation it is stopped in Persia and S.E. of the Caspian. The alluvial tracts of Poland and the Ukraine, and the salt plains arrest it on the N. and N.E. Naturalized in some parts of England, it is certainly not indigenous. The involucre of C. imperatonianus usually contains a secondary involucre to the second spathe.—W. H.

For the foregoing account, and the accompanying drawing we have to return our acknowledgments to the learned Dean of Manchester, by whom these charming plants have been studied with peculiar care.

CYCNŎCHES pentadactўlon.

Five-fingered Swan-neck.

GYNANDRIA *MŎNANDRIA.*

Nat. ord. Orchidaceæ § Vandeæ.

CYCNOCHES. *Botanical Register, vol.* 21. *fol.* 1742.

C. *pentadactylon ;* racemo brevi stricto, sepalis petalisque lanceolatis reflexis supremo incurvo, labelli unguiculati margine revoluto dorso adnato, hypochilio cornu recto incurvo aucto, metachilio 4-lobo medio foveato laciniis 2 posticis obtusis carnosis incurvis anticis subulatis, epichilio linguiformi acuto lævi. *Supra misc. no.* 26.

The fleshy-stemmed Orchidaceæ, consisting of Catasetum, Cycnoches, Mormodes, and Cyrtopodium, probably form a group (Catasetidæ), among which we find the most astonishing deviations from ordinary structure, and the most startling variations from what appears to be the rule in other parts of the organic world. If we were informed that the Camelopard in the Zoological Gardens had shortened the vertebræ of its neck till it was no longer than a cow's, or that a Kangaroo had exchanged its tail for the switch of a Shetland pony, a more surprising thing would not be announced than those changes with which we are now familiar in this group of Orchidaceæ.

How Myanthus, Monachanthus, and Catasetum have been seen to change into each other has been already told in this work, (Vol. 23, t. 1951.) An instance is also mentioned at the same place, of Cycnoches Loddigesii having been caught in the very act of playing similar tricks; and with the forthcoming number of Mr. Bateman's Orchidaceæ of Mexico and Guatemala, a yet more startling case will be recorded.

All these things are here mentioned for the sake of shewing how difficult it is in such plants to judge correctly as to what may be a species and what a sport. Influenced by these

considerations I have till lately refrained from saying any thing about the plant now figured. It has in some respects so much the appearance of C. maculatum, that when I first received it from Mr. Veitch of Exeter, in March 1842, I hesitated whether to regard it as a variety or a distinct species. A plant, however, obtained from Brazil direct by Messrs. Loddiges (Cat. no. 890) has given me courage to regard it as the latter. It has a short raceme of much larger greenish-yellow flowers, with broad chocolate-brown blotches, and its lip is quite remarkable, having 5 finger-like lobes, and no more, instead of the lateral comb-like fringes of C. maculatum.

ONCIDIUM microchilum.

Small-lipped Oncidium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ § VANDEÆ.
ONCIDIUM. Swartz.

EUONCIDIUM; Heteranthium; Folia plana; Pentapetala; Micropetala; labello bilobo. *Sertum Orchidaceum, sub t.* 48.

O. *microchilum* (Bateman in Bot. Reg. 1840, misc. 193.); pseudobulbis lenticularibus brevibus monophyllis, folio oblongo carinato carnosissimo acuto quam scapus erectus versus apicem paniculatus quadruplò breviore, sepalis liberis lateralibus longiùs unguiculatis, petalis oblongis subundulatis retusis, labello duplò latiore quam longo lobo intermedio nano triangulari lateralibus rotundatis planis, cristâ reniformi crenatâ, columnæ nanæ alis subulatis apice glandulosis.

This most curious plant was introduced some years ago from Guatemala by Geo. Ure Skinner, Esq. and was afterwards found in the same country by Mr. Hartweg. When I first published it I knew it only from report, and a single damaged dried flower, and consequently several inaccuracies crept into its description, which led to its being misplaced in the enumeration of the genus published in the Sertum Orchidaceum. Its real situation is near O. deltoideum.

Although not a very splendid plant, it is far from being undeserving notice. Its very glaucous flower-stem, the snow-white lip and crimson petals, lying as it were in the middle of dusky brown sepals, produce a singular and pleasing effect. For the opportunity of figuring it, we are indebted to J. C. Harter, Esq. of Broughton, near Manchester, who was so obliging as to forward specimens, along with a drawing by Mrs. Powell, in September last. Mr. William Ashton, the gardener to Mr. Harter, also deserves to be mentioned, as having succeeded in flowering the plant before any one else. We understand that the Orchidaceæ of Mr. Harter's collec-

tion are hardly surpassed in health by anybody's. Arpophyllum is reported to exist there, with many new species from Oaxaca.

Mr. Skinner, who discovered the species, has been so kind as to give us the following information upon that subject.

"The Oncidium microchilum I first found on the top of the 'Cuesta' of Puentezuelas, some thirteen leagues from Guatemala, and sent it to Mr. Bateman in 1838. It was growing on a bare rock, with a quantity of dead leaves and grasses about its bulbs, and its roots woven into the interstices of the rock and mould about it; very much exposed to the sun, except during the middle of the day, when a ledge of rock seemed to afford it a little shade. I afterwards found it in great abundance on the rocky banks of the river Michatayal, from whence the present one now flowered came; it was sent to Mr. Harter and Mr. Clowes in 1840, and arrived in June of that year. I never saw it except in such situations, generally exposed, and always among rocks. It is very fragrant; and in its native habitat I have always observed the sepals and petals darker and more marked than this now flowered here. The temperature generally of the above habitats is 68° to 70°; and, from being exposed, cold at nights."

Fig. 1. represents a side view of the lip; 2. a front view of the same part.

It may be potted in turfy heath-mould, mixed with a few pieces of small potsherds, which will cause superfluous water to pass off freely. The pot should be half filled with potsherds, broken smaller towards the top, and the soil considerably elevated above its brim. During the summer months, while the plant is in a growing state, plenty of water should be given, and the temperature allowed to rise to 80° by day, and fall to 68° at night—giving a slight shade in bright sunny weather. In the winter season very little water is required, and the temperature may be allowed to fall as low as 50° or 55°.

1
2

IPOMŒA cymōsa.

The White-cluster Ipomœa.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CONVOLVULACEÆ.
IPOMŒA. *Choisy.*

I. *cymosa;* caule tereti, foliis ovato-cordatis apice acutis etiam acuminatis elongatis superne nigrescentibus, pedunculis axillaribus bifido-multifloris brevibus, sepalis coriaceis obtusis aut rariùs acutiusculis flavo-nigrescentibus exterioribus sæpe brevioribus. *Choisy Convolv. orient. p.* 80.
Convolvulus cymosus, *Desrousseaux Encycl. bot.* 3. 556.
Convolvulus pentagonus, *Roxb. fl. ind.* 1. 485. *Wall. fl. ind.* 2. 72.
Convolvulus bifidus, *Vahl. symb.* 3. 31.
Convolvulus Rothii, *Spreng. syst.* 1. 600.
Convolvulus lævis minor, *Rumph. amboin.* 5. 431. *t.* 158.
Convolvulus blandus, *Roxb. Fl. ind.* 1. 470. *Wall. fl. ind.* 2. 50.
Ipomœa cymosa, *Römer & Schultes syst. veg.* 4. 241.
Ipomœa bifida, *Roth. nov. sp.* 118.
Ipomœa corymbosa? *Id.* 109.
Ipomœa Heynii, *Römer & Schultes syst. veg.* 4. 237.
Ipomœa Rothii, *Id.* 237.
Ipomœa blanda, *Sweet Hort. Sub. Lond. ed.* 2. 288.
Ipomœa radicans? *Blume Bijdr.* 712.

If all the above names are really, as M. Choisy states, synonyms, it must be confessed that the Botanists who have invented them have much to answer for. Thirteen different names for the same plant form rather an unusual supply of confusion even in the bewildering nomenclature of Botanists. It is however to be said in justification, or at least palliation, that the plant is variable in appearance, sometimes smooth, sometimes hairy, and that, like other Ipomœas, it occasionally indulges in throwing out angles from its leaves.

It appears to be wild all over the tropics of Asia; the Circars and the Moluccas according to Roxburgh, Amboyna according to Rumphius, and apparently Java, are its favourite countries. According to Rumphius, the flowers open about

nine in the morning, and close at two in the afternoon. The same author tells us, that if the leaves are bruised they stain the skin a red colour, which can only be removed by scrubbing with sand and water. He adds, that the leaves are boiled and eaten as kitchen-garden stuff; and that they are applied to ulcers and tumours in the manner of poultices.

It is a perennial, of great beauty, flowering most profusely in the stove. The specimens from which the accompanying drawing was made, and for which we are indebted to Mrs. Lawrence, were the most lovely one can imagine, in the month of December, when it is most difficult to procure such things, forming festoons of snow-white yellow-eyed flowers resting upon a deep green shining foliage.

Fig. 1. represents a stamen, whose filament is covered over the base with yellow glands; 2. is the style and stigmas; 3. the ovary cut across.

RHODODENDRON Rollissonii.

Garden Variety.

In many respects this very striking plant so much resembles Rhododendron nobile, the Ceylon variety of R. arboreum, especially in its deep red flowers, and the closeness with which they are arranged, that we supposed it must be it. But upon comparing it with wild specimens from Ceylon we find that the Rhododendron of that island has leaves silvery underneath, while in the plant before us they are rusty. It is therefore clear that R. Rollissonii has had some other origin, but what that origin was we do not know.

It is among the handsomest of the crowd of varieties, called hybrids, which tempt the buyer at every shop, and seems in colour to resemble most a plant called Mars by Mr. Lee, of Hammersmith; but its flowers are much more compact.

And now a word or two concerning the habits of the Indian Rhododendron. There is a common belief that the plant ought to be hardy, because it is found in Nepal. But Dr. Royle tells us (*Illustrations, p.* 258) that it is only found *at the lowest elevations* and in the *most southern latitudes* of the Himalaya. It is true that it sustains considerable cold in winter in these places, but the rise and fall in temperature are gradual, and better enable a plant to resist the climate.

If the most northern stations for the Rhododendrons are thus comparatively mild, how much more so must those be to the southward, and how small the chance of acclimatizing *R. nobile;* notwithstanding that Mrs. Walker assures us that the shoots of the Rhododendron are shrivelled up in Ceylon, as if they were scorched, in consequence of continued cold mornings which blight every thing.

This variety is rather more tender, and requires a much warmer situation than the old R. arboreum.

It grows freely in a mixture of sandy peat and loam. The plants after flowering should be kept in a warm pit, and rather close, to encourage the growth of the young shoots, afterwards they may be placed out of doors during the summer, and the pots should have a top dressing of fresh cow-dung and plenty of water.

Increased by grafting in the same manner as Camellias.

1
2

ECHĬUM petrǣum.

The Rock Bugloss.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Boraginaceæ.
ECHIUM. L.

E. *petræum;* caule erecto ramosissimo, foliis lineari-lanceolatis obtusis pubescentibus subtùs albis revolutis. "*Trattenick enum. t.* 8." *Dietrich Synopsis,* 1. 600.

This is a beautiful herbaceous plant, native of rocks in Dalmatia, where we believe it was first discovered by General Baron v. Welden.

It is apparently a genuine Echium, having an irregular corolla, with an erect limb, and perfectly even throat, without any appendages. Nevertheless Reichenbach, in his *Flora excursoria,* not only refers it to Lithospermum, but regards it as a synonym of his *L. rosmarinifolium,* which although apparently not the true plant of that name is still a genuine Lithospermum.

The plant from which our drawing was taken, was raised in the Garden of the Horticultural Society, from seeds presented by Baron Welden, and flowered beautifully in a cool greenhouse in May. At that time it was the gayest little plant possible, with its neat clean leaves, stiff stems, about nine inches high, and pale blue flowers, which are pink before they open.

Fig. 1. represents a corolla cut open; 2. shews the ovary, style and stigma.

A pretty little hardy evergreen shrub, growing from one to two feet high. It succeeds best in a mixture of sandy loam and rough peat, that is rather poor. It must be kept

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in a dry, airy situation, in a cold pit, where there is plenty of light at all times, but particularly during the winter.

It flowers freely during the months of April and May, but is difficult to preserve through the winter, as it is very subject to damp off, even when the plants are old.

It is increased by seed freely, or by cuttings of the young wood.

1
2

ECHĪTES atropurpurĕa.

Dark-purple Echites.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Apocynaceæ.
ECHITES. L.

E. *atropurpurea;* glabra, foliis petiolatis ovatis acutis, pedunculis bifloris axillaribus foliis longioribus, sepalis lineari-ovatis, corollæ glabræ lobis triangularibus undulatis patentissimis, disco biglanduloso.
E. atropurpurea. *Lindley in Paxton's Magazine of Botany,* 1842.

This is a handsome greenhouse climber, introduced from South Brazil by Messrs. Veitch of Exeter. It is nearly allied to the *E. Martiana,* from which it differs in having smooth shoots and leaves, and a corolla whose lobes are not crisp.

We find the following popular account of the plant in Paxton's Magazine of Botany.

"The blossoms of this plant are borne on long and graceful axillary peduncles, two or more appearing on each. They have a tube nearly two inches in length, expanding, about half way from the base, into a wide throat, which has an ample and spreading limb, an inch and a half across. In the earlier stages of their development, they have a pleasant odour, which enhances the interest of the species.

"It was exhibited by Messrs. Veitch at one of the great meetings in the Horticultural Society's gardens, and a Banksian medal was awarded for it. The dark tint of its flowers seems to contrast finely with the lightness and airiness of its habit.

"In cultivation, it requires the temperature of the stove, and may be trained to the rafters of the house, or to a wire trellis spread entirely over the roof. If the branches are intermingled with those of *E. suberecta* and *Stephanotis floribundus,* their flowers make a very harmonious and delightful

combination. The plant may either be kept in a large pot, or planted in a prepared pit or compartment, which is duly exposed to light, and not liable to become too wet. For soil, the ordinary mixture of sandy loam and heath-mould will be appropriate. From the weakness of its shoots, it will need pruning in the winter, and may perhaps be improved by having its branches stopped while they are growing. It is not till after a specimen has been established for two or three years that it acquires the ornamental character which naturally belongs to it, and it then blossoms throughout the summer in the greatest prodigality.

"Like *E. suberecta*, it can doubtless be trained on a barrel-shaped trellis. The shoots must, however, be twined very closely, on account of the scantiness of foliage; and if, after they have reached the prescribed height, they are turned back over the previous coils, the trellis will be well covered, and a good display will assuredly be the result.

"Cuttings of the young wood root with facility, when treated in the usual way."

Fig. 1. represents the stamen, arising from the throat of the corolla; 2. is the ovary, with the two fleshy glands at the base.

DENDROBIUM taurinum.

Bull-headed Dendrobium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ § VANDEÆ.
DENDROBIUM. *Swz.*

§ *Spatulata* (Lindl. in London Journ. of Botany, 2. 235.). Cornu breve. Petala elongata. Racemus pedunculatus oppositifolius. Caulis erectus teres.

D. taurinum.

Whether or not it is possible to divide the great, and unnatural genus Dendrobium by any really stable characters is uncertain. It certainly appears to contain several distinct types of structure, but up to the present time I have sought in vain for any thing sufficiently precise on which to found generic characters.

Among the sections of the genus no one is better marked than this, which consists of species with a stiff erect habit, racemes of flowers placed on a long peduncle opposite the leaves, large showy flowers, and the petals remarkably longer than the sepals. But beyond this I can find nothing that differs from Dendrobium; and as the three first characters are merely of habit, the last can hardly be regarded of enough importance to authorise the establishment of a genus. For this reason I proposed in the London Journal of Botany to combine them, under the name of *Dendrobia spatulata*, into a new section of the genus.

Of plants with this structure I know six completely; and a seventh is probably to be added. Of these the following is an enumeration.

1. D. *taurinum* (the subject of the accompanying plate); foliis oblongis obliquè emarginatis, racemo oblongo, sepalis ovatis obtusiusculis, petalis

linearibus contortis duplò longioribus, labello oblongo apice crispo per axin lineis 3 elevatis intermediâ apice flexuosâ aucto.

A native of Manilla, whence Mr. Cuming sent it to Messrs. Loddiges. It has large flowers, with yellowish green sepals, rolled back at the points, very long deep purple twisted petals, and a paler purple lip, with three elevated lines along the middle, and a few small tubercles near the apex (fig. 2.). The column (fig. 1.) is short and somewhat pouched at the base, in consequence of the lip being adherent to it at that place. The plant is five feet high. It flowered at Hackney in October last. I have wild specimens from Mr. Cuming; but they are not nearly so handsome as that now figured from Messrs. Loddiges.

2. D. *Mirbelianum* (Gaudich. Voyage, t. 38.); foliis ovato-oblongis obtusis, racemis ovatis longè pedunculatis, sepalis ovato-lanceolatis acutis erectis, petalis spathulatis unguiculatis obtusis longioribus, labelli trilobi ovato-lanceolati subsessilis lobis lateralibus rotundatis intermedio lanceolato undulato acuto, lineis tribus elevatis lateralibus versus basin duplicibus.

A native of New Guinea, whence I have specimens from Mr. Hinds. Its racemes, including their peduncle, are more than a foot long. The petals are an inch and half long. Gaudichaud's figure is not a good one.

3. D. *veratrifolium* (Lindl. l. c. L.); foliis oblongis obtusis amplexicaulibus 9-11-nerviis, racemo terminali elongato multifloro, sepalis undulatis acutis, petalis spathulatis obtusis planis vix duplò longioribus, labello oblongo obtuso membranaceo venis tribus elevatis per axin duabusque minoribus lateralibus: lobis lateralibus nanis obtusis intermedio oblongo undulato.

Another species from New Guinea, where it was found by Mr. Hinds. It is a most beautiful plant, with racemes a foot and a half long, loaded with flowers, whose spatula-shaped petals are an inch and more in length. The inflorescence is very loose in this; in D. Mirbelianum it is far more compact.

4. D. *macranthum* (A. Rich. Sert. Astrolab. p. 15. t. 6.); foliis ellipticis apice obliquo subbilobis, racemo longipedunculato versus apicem monophyllo, sepalis ovato-lanceolatis, petalis paulò longioribus unguiculatis lanceolatis acutis, labello lanceolato trilobo per axin tricarinato laciniâ intermediâ acuminatâ lateralibus nanis rotundatis.

A native of the island of Vanikoso. The stem is described as two feet and more high; the leaves from three to four inches long, the raceme about a foot long, the flowers

three inches in dameter. It is very near my D. veratrifolium, but differs in having much shorter petals and a very acute lip.

5. D. *antennatum* (Lindl. l. c.); foliis lanceolatis carnosis obliquè emarginatis racemo oppositifolio brevioribus, sepalis acuminatis, petalis linearibus duplò longioribus reflexis, labello trilobo venis 5 elevatis rectis per axin; lobo medio ovato acuto plano 3-costato.

Also among Mr. Hind's New Guinea collections. It is a most curious thing, with flowers having their long horn-like petals directed backwards, and their sepals forwards. The petals are two inches long, and scarcely half a line wide. The leaves are succulent, brittle, and veinless when fresh.

6. D. *undulatum* (*R. Brown Prodr.* 332. *L. no.* 62. D. discolor, *Lindl. in Bot. Reg.* 1841, *t.* 38.); foliis ovato-oblongis emarginatis, racemis longissimis, sepalis petalisque undulatis, labelli trilobi lobis acutis intermedio lanceolato, lineis quinque elevatis intermediâ apice flexuosâ.

A tropical New Holland species, with singular dingy yellow-brown flowers, of little beauty. It has also been found in Java.

7. ? D. *affine* (Onychium affine, *Decaisne herb. timor.* 37.); "foliis lineari-oblongis acutiusculis coriaceis, pedunculo foliis triplo longiore oppositifolio? laxifloro, floribus spicatis; perianthio erecto, segmentis exterioribus lineari-lanceolatis acutis, interioribus subobovatis rotundatis mucronulatis; labelli unguiculati lobis 3, medio lineari-lanceolato, lateralibus subrotundis."

As M. Decaisne compares this with D. Mirbelianum, it probably belongs to the present section, notwithstanding that he conjectured the stem to be bulbous. The petals are said to be obovate and mucronate. It is a native of Timor, with acute linear-lanceolate leaves.

Ridgway, 169 Piccadilly. June 1 1843.

* BARNADESĬĂ roseă.

Rose-coloured Barnadesia.

SYNGENESIA *POLYGAMIA.*

Nat. ord. COMPOSITÆ, § LABIATIFLORÆ.

BARNADESIA. L. Capitulum multiflorum homogamum. *Invol.* turbinatum multiseriale imbricatum, squamis interioribus radiantibus. *Recept.* paleis tenuissimis piliformibus spiraliter tortis densè vestitum. *Flores* aut dissimiles exteriores biligulati, labio externo amplo 4-dentato, int. filiformi, centrales tubulosi 5-dentati, aut omnes bilabiati. *Stam.* filam. aut omnium aut exteriorum monadelpha! *Antheræ* ecaudatæ. *Achænium* turbinatum densè sericeo-villosum. *Pappus* 1-serialis, nunc ubique plumosus, nunc in periphæriâ plumosus in disco setis hirsutis subrigidis constans.——Frutices *in Amer. austr. habitantes.* Aculei *sæpiùs stipulares subulati gemini.* Folia *alterna integerrima mucronata.* Capitula *terminalia.* Cor. *purpureæ villoso-sericeæ.* Pappus *et* recept. *pili fulvi.* DeCand. Prodr. 7. 2.

B. *rosea;* capitulis solitariis ovato-cylindraceis pubescentibus sessilibus, flosculorum labio altero oblongo emarginato extus villoso altero filiformi, flore tubuloso centrali nullo, filamentis liberis, pilis receptaculi haud tortilibus, pappo rigido plumoso.

The singular genus Barnadesia consists of South American spiny bushes, with so very similar a foliage that they can hardly be distinguished; but differing in the size, and form, and number of their flower-heads. That now figured, for which we are indebted to the kindness of His Grace the Duke of Northumberland, is of the greatest rarity, and, as far as we can discover, undescribed.

According to DeCandolle all the species are monadelphous, except *B. laxa*, and in that plant there is a solitary tubular floret in the disk; but here the stamens are not monadelphous, nor is there a solitary tubular flower in the disk; in the place of the latter there is a space which pours forth

* So called by the younger Linnæus, after Michael Barnadez, a Spanish Botanist, concerning whom we have no information.

honey in abundance. It also appears that the hairs of the receptacle are not twisted spirally as in other Barnadesias, but are soft and straight.

The dissections at the bottom of the plate fully explain the structure of this plant: 1. is a perpendicular section of the receptacle and involucrum, shewing the straight short hairs of the former; 2. is a floret with its shaggy ovary, stiff unequal feathery pappus, and two-lipped corolla; 3. is one of the feathers of the pappus; 4. shews the stamens, with the five filaments and syngenesious anthers; 5. is the style and simple stigma.

It is a warm greenhouse plant, and should be kept during winter in an intermediate house, between a stove and greenhouse, where the temperature averages 47°, or as near as possible. It may be grown in a compost consisting of peat, loam, and sand, in equal proportions. Water should be liberally given in summer, but sparingly in winter, otherwise the plant would naturally suffer from damp, being a native of elevated situations. It is propagated by cuttings, or seeds, in the usual manner.

Pub by J Ridgway 169 Piccadilly June 1 1843.

J Barclay sc

COMAROSTAPHYLIS arbutoides.

Arbutus-like Gritberry.

DECANDRIA *MONOGYNIA.*

Nat. ord. Ericaceæ.

COMAROSTAPHYLIS. Zucc. Calyx quinquefidus. *Corolla* hypogyna, globoso-campanulata, limbo quinquefido, reflexo. *Stamina* 10, imæ corollæ inserta; *filamenta* brevia; *antheræ* a latere compressæ, dorso infra apicem affixæ, reflexo-biaristatæ, apice biporosæ. *Ovarium* disco hypogyno cinctum, quinqueloculare, rariùs sex-novemloculare, loculis uniovulatis. *Stylus* simplex; *stigma* obtusum. *Drupa* globosa, papillosa, monopyrena, putamine osseo, quinqueloculari, rarius sex-novemloculari, loculis monospermis. *Semina* inversa.——Frutices *mexicani;* foliis *alternis, sempervirentibus, integerrimis v. argute serratis,* racemis *terminalibus simplicibus.* Endl. gen. no. 4328.

C. *arbutoides;* erecta, ramulis foliis subter paniculisque tomentosis, foliis lineari-oblongis integerrimis mucronulatis virentibus subtus ferrugineis, bracteis acuminatis pedicellis brevioribus.

A native of Quezaltenango in Guatemala, this plant has been raised in the garden of the Horticultural Society from seeds received from Mr. Hartweg. It produced its flowers for the first time in October, 1842; and is now (May, 1843) again in blossom.

In some respects it is rather like Comarostaphylis polifolia, but its leaves are much broader and larger and thinner, and they are covered beneath with ferruginous down; the flowers are in panicles, standing high above the leaves, are four times as large, and are white not crimson.

In appearance it resembles an Arbutus, but it has a drupaceous fruit, covered with the tubercles of that genus. It differs from Arctostaphylos in the fruit not being smooth, and in having a five-celled drupe, and from Arbutus in the fruit not being many-seeded. It appears, with some other plants, to form a perfectly well marked genus.

A pretty shrub, which proves rather tender for the climate of London. It grows five or six feet high, and like the common kinds of Arbutus, thrives well in a light sandy loam, mixed with a small portion of leaf-mould. It is increased either by seeds or by budding. The seeds should be sown directly they are ripe, in pans filled with light sandy loam, and kept rather dry, until vegetation commences. If sown in a peaty soil they vegetate quicker, but they then invariably shank off when above ground, if not immediately transplanted and kept rather dry. It may be budded in the usual way on the common Arbutus, in July or August. It flowers freely from October to May.

It was raised from seeds received from Mr. Hartweg, and a large portion of which was distributed by the Society, under the name of "Arbutus sp., a half-hardy evergreen shrub, five or six feet high, in 1840." It is said to have been collected at the foot of the active volcano, Xetic, near Quezaltenango, in Guatemala.

Fig. 1. represents the transverse section of its ovary.

Ridgway 169 Piccadilly June. 1. 1843.   S. Barclay sc.

* MARCETĬA excoriāta.

Loose-barked Marcetia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. MELASTOMACEÆ.

MARCETIA. DC. *Calycis* tubus oblongus aut cylindraceus, lobis 4 lanceolatis. *Pet.* 4, ovalia acuta. *Stam.* 8, æqualia, antheris basi bituberculatis oblongis 1-porosis. *Ovarium* liberum glabrum. *Stylus* filiformis. *Stigma* punctiforme. *Capsula* 4-valvis 4-loc. calycis tubo circiter æqualis. *Semina* cochleata.——Suffrutices *Brasiliensis.* Rami *teretes.* Folia *subcarnosa, oblonga, margine sæpiùs revoluta, basi cordata, brevissimè aut vix petiolata, integerrima, sæpè enervia.* Flores *axillares, solitarii, subsessiles, bibracteati, albi aut subrubentes.* DeCand. Prodr. 3. 124

M. *excoriata;* suffruticosa, ramosissima, foliis sub-sessilibus oblongis basi subcordatis apice obtusis mucronulatis densè pubescenti-velutinis sub-3-nerviis, floribus axillaribus pedicellatis 8andris in racemum foliaceum subdigestis, antheris basi bituberculatis. *DeCand. prodr.* 3. 124.

This genus consists of a group of curious little Melastomaceous plants, having almost the habit of Heaths. They are all found in tropical America in mountainous places, or in elevated sandy deserts, and give a peculiar feature to the places where they grow. In our gardens they are almost unknown; that which is now represented, from the collection of His Grace the Duke of Northumberland, at Sion, being the first that we have met with in cultivation. DeCandolle describes eleven species.

They are warm greenhouse plants, difficult to manage, and multiplied by cuttings. Their names occur in some of the continental Catalogues, as for example in that of Mr. Makoy of Liege, who has this and another, the *M. rosmarinifolia;* the price of the first being 20 francs, and of the second 15, but he regards them both as stove plants.

* Named after Dr. Marcet of Geneva, a chemist who was the author of a curious paper concerning the effect of poisons upon plants.

Fig. 1. is a view of the calyx and stamens, the petals being removed ; 2. is one of the anthers, with its two tubercles at the base.

In some herbaria M. decussata is marked M. excoriata ; but it is a very different species.

It will succeed best in a stove, potted in one half leaf-mould, mixed with loam and sand in equal parts. A good drainage is necessary, and plenty of water at the roots at all times. While in flower, syringing should be dispensed with altogether, for the moist atmosphere in a stove is quite sufficient. After the flowering season is over, the plant should be cut back, at least all slender branches should be removed, in order to produce a supply of young wood for flowering the following year. It is propagated by cuttings in the usual way.

169 Piccadilly June 1. 1843. S Barclay sc

TROLLĬUS acaūlis.

Stemless Globeflower.

POLYANDRIA *POLYGYNIA.*

Nat. ord. RANUNCULACEÆ.

TROLLIUS. L. Calyx corollinus, penta-pendecaphyllus, foliolis æstivatione imbricatis deciduis. *Corollæ* petala 5-20, hypogyna, minima, tubulosa, unilabiata. *Stamina* indefinita, hypogyna. *Ovaria* plurima, libera, unilocularia, ovulis ad suturam ventralem pluribus, biseriatis. *Capsulæ* folliculares, coriaceæ, cylindricæ, sessiles, *stylo* dorsali acuminatæ, transversim nervosæ, intus longitudinaliter dehiscentes, polyspermæ. *Semina* angulata. —— Herbæ *in pratis montanis, frigidiusculis hemisphæræ borealis vigentes,* Ranunculi *facie ;* foliis *palmatim-multifidis,* floribus *terminalibus, luteis, exinvolucratis.* Endl. gen. 4787.

T. *acaulis ;* foliis digitato-palmatis laciniis tripartitis pinnatifidis, pedunculo brevissimo unifloro, flore stellato, sepalis 9 lanceolatis subincisis, petalis lineari-cuneatis apice rotundatis. *Lindl. Bot. Reg.* 1842, *misc.* 56.

This is among the most curious plants that have been procured for our gardens by the liberality of the East India Company. It has, in many respects, the appearance of a little Eranthis, of which it will probably prove the summer rival; for it does not flower till July.

Whether or not the flowers will always preserve their dwarf stature, or whether as it becomes stronger this species will elevate itself a little more, cannot at present be ascertained, for we know nothing of it in a wild state.

This is remarkable in it, that the flowers are not globose as in the old species of Trollius, but spread open, in a starry manner, like those of an Anemone. The petals are deep orange; the carpels are fifteen in number.

If Don had not compared his *T. pumilus* with T. Americanus, and described its sepals as roundish oval, we should have thought that plant might be the same as the present.

But if his description can be at all relied on, his must be a very different species.

A neat hardy herbaceous plant, growing freely in a mixture of sandy loam and peat, and in rather a damp situation. It is increased either by seeds, or by dividing the old plants; but the young plants grow but slowly at first, and will not flower before the second season.

It flowers in July, and was raised from seeds received from Dr. Royle, and stated to have been collected in Cashmere; but the seeds are frequently to be found in the collections of seeds sent from the North of India.

MORMŌDES luxātum.

Dislocated Mormodes.

GYNANDRIA *MONANDRIA*.

Nat. ord. Orchidaceæ § Vandeæ.

MORMODES. *Supra vol.* 22. *fol.* 1861.

M. *luxatum.* (See the enumeration further on.)

The genus Mormodes has so entirely the habit of Catasetum that we have no means of distinguishing those two genera except when in flower. At that time Mormodes presents some peculiarities of so strange a nature that, if they were not found constant in several distinct species, we should be tempted to regard them as monstrosities. In particular the column, instead of being straight and standing erect in the centre of the flower, is bent over to one side, just as if it had been subjected to violence. There is also a great irregularity of direction and proportion in the parts that surround the column.

No where are these singularities so strongly marked as in the plant now before us, whose sepals and petals, instead of standing in an obviously alternate position with respect to each other, are so completely broken up and twisted out of their places that they can hardly be recognised, and the whole floral apparatus is as it were dislocated. For example, of the three sepals, the back one is placed almost opposite one of the petals; the other petal is shifted to one side, so as to stand half behind the first; and the lip, instead of being stationed exactly between the two petals and two lateral sepals, turns its back to the left-hand sepal, and its face to the right-hand petal. And then the column is bent to the left as well as the lip, but not in the same degree, so that even these two organs are not, as they usually are, opposite each other.

In mentioning the existence of this singular plant we

some time since spoke of it thus:—"When Mr. Ross, the collector to George Barker, Esq. of Birmingham, was in the neighbourhood of Valladolid, in Mexico, there was brought to him some masses of a plant reported to be of great beauty. They arrived safely in England, and one of them has at last flowered, proving to be this species; a most extraordinary plant, of large size, of a stately habit, with a very delicious fragrance, although powerful, but with no brilliant colours to render it what *we* call handsome. Its flowers are three inches in diameter, pale lemon-colour, fleshy, rather globular, but so distorted by the complete dislocation of all the parts, that it would be difficult to ascertain their real nature, if it were not for the token given by the labellum. The latter has a deep brown streak drawn down its middle, and covers over the column like a hood. The leaves of this plant are about three feet long, narrow, deep green, with a very fine glaucous bloom upon their underside. It is worthy to be associated with even Sobralia macrantha in the choicest of all collections of these plants."

Fig. 1. represents the lip; 2. the column; 3. gland, caudicula, and pollen-masses; 4. a pollen-mass seen from behind.

With regard to its cultivation, it is a stove-plant, which should be potted in a compost of turfy heath-mould, mixed with a portion of small potsherds. Water should be liberally given in fine weather, during the summer, and the temperature kept as high as 80° by day, and 70° by night. As the season of rest advances, watering should gradually be dispensed with, so that in winter it may be treated like a Catasetum, that is to say, have little or no water at all for a few weeks, while the temperature is allowed to fall to 58° by day, and 50° at night. As the operation of watering is gradually diminished in autumn, so it should be increased in spring, according to the state the plant may be in; and the house should be slightly shaded in bright sunny days.

The following are the specific characters of all the species at present known to us.

MORMODES.

1. M. *atropurpureum* (Lindl. in Bot. Reg. t. 1861.); racemo

oblongo denso, sepalis lineari-oblongis æqualibus reflexis basibus lateralium paulo obliquis, petalis ovatis erectis supra columnam conniventibus, labello replicato retrorsum arcuato cuneato trilobo: lobis lateralibus deflexis venosis intermedio carnosiose cuspidato subtrilobo.—— *Central America.*——Flowers deep purple, on a close erect raceme.

2. M. *lineatum* (Bateman in Bot. Reg. 1841, misc. no. 107. 1842, t. 43.); racemo elongato multifloro, sepalis petalisque oblongo-linearibus abruptè acutis margine reflexis, labello lineari incurvo carnoso sparsim piloso versus basin utrinque dente nunc brevi nunc elongato aucto, columnæ dorso et margine pubescente.—— *Guatemala.*——The flowers are deliciously fragrant; when they first appear they are dull olive green; they afterwards acquire a bright warm yellow tint, and the markings upon them increase in intensity till they have become orange-red.

3. M. *aromaticum* (Lindl. in Bot. Reg. 1841, misc. 162.); racemo brevi erecto, sepalis petalisque subrotundo-ovatis acutis secundis concavis, labello angustè cuneato convexo laciniâ intermediâ triangulari acuminatâ cucullatâ.—— *Mexico.*——This has flowers with a pale pinkish ground sown thickly with dull wine-red specks, and a powerful odour like that of aromatic vinegar. It differs from M. pardinum in the small size of its flowers, and the very dissimilar form of the lip and floral envelopes.

4. M. *pardinum* (Bateman Orch. Mexic. t. 14. Hooker Bot. Mag. t. 3900. *Cyclosia maculata*, Klotzsch in Gartenzeit. no. 39. 1838.—Var. *Unicolor*, Hooker l. c. t. 3879. *Catasetum citrinum*, Hort.); foliis elongatis lanceolatis, racemo ascendente elongato multifloro, sepalis petalisque lanceolatis acuminatis subsecundis, labello plano conformi acutè tridentato unguiculato.——*Mexico.* ——A beautiful species, with bright yellow flowers, spotted with rich brown in one variety; whole coloured with no spots whatever in the other.

5. M. *luxatum* (Lindl. in Bot. Reg. 1842, misc. 66. 1843, t. 33.); foliis longissimis angustis subtùs glaucis racemo oblongo pluriès longioribus, sepalis ovato-lanceolatis petalisque oblongis concavis margine subscariosis carnosis in-

curvis, labello hemispherico concavo obsoletè trilobo apiculato supra columnam cucullato, polliniorum caudiculà apice tuberculato.——*Mexico.*——Flowers large, as much as $3\frac{1}{2}$ inches in diameter, pale lemon-colour, powerfully aromatic.

6. M. *buccinator* (Lindl. in Bot. Reg. 1840, misc. 9.); racemo stricto oblongo, sepalis lineari-oblongis lateralibus reflexis dorsali petalisque ovali-lanceolatis erectis, labello unguiculato carnoso nudo subrotundo-cuneato apiculato utrinque emarginato lateribus in buccinæ formam revolutis.——*Mexico.*——Flowers pale green, with an ivory-white lip, whose sides are so rolled back as to give it the appearance of a trumpet. The column is twisted sometimes to the right, sometimes to the left. The habit and general appearance of the flowers, except in colour, is that of *M. atropurpureum.*

G Barclay sc

PORTULACA splendens.

Garden Variety.

We presume this to be a mere variety of Portulaca Thellusonii, figured at plate 31 of our volume for 1840; but if so it is one of singular beauty. Its origin is however unknown to us. Seeds of it were purchased of Mr. Charlwood, in Covent Garden, for the Horticultural Society, and in the Chiswick Garden it flowered in the autumn of 1842.

It is a charming tender annual, about a foot high, which flowers most abundantly from July to September, if treated in the following manner.

The seed should be sown about the middle of March in pots filled with a mixture of sandy loam, old lime rubbish, and well decomposed cow-dung in equal portions. The plants should be raised on a hot-bed, and when large enough should be potted off singly into small sixty-pots, filled with the same kind of compost as that in which the seeds were sown. The young plants when potted should be again returned to the hot-bed, and when well established, their pots being well filled with roots, should be re-potted into upright thirty-twos, draining the pots well, and covering the surface of the soil with a thin covering of fine sand.

After this the pots should be placed on the front shelf of a greenhouse, where they are freely exposed to the sun, but guarded from wind and rain, the first of which destroys the flowers, and the latter the plants. Care must also be taken in watering the plants; as on this much depends of the success in their management; for they are very subject to damp off close to the soil.

It is also possible to grow this Purslane in the open ground in a fine dry season, if it is planted in a hot situation, where it can be protected from heavy rain and wind, but it will not, under such circumstances, display all its beautiful effects.

Pub. by J. Ridgway 169 Piccadilly July 1. 1843.

* LYCASTE plana.

Even-flowered Lycaste.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ. MAXILLARIDÆ.
LYCASTE. *Lindl. in hujus voluminis miscell. p.* 30.

L. *plana* (Lindl. in Bot. Reg. 1842, misc. 96.) bracteâ supremâ cucullatâ ovario longiore, sepalis oblongis planis basi in cornu brevi conico connatis, petalis conformibus apice tantùm recurvis, labelli trilobi lobis lateralibus apice crenulatis intermedio subrotundo serrato callo elevato obtuso obsoletè trilobo, columnâ pubescente, antherâ villosâ.

A Bolivian plant imported by Messrs. Loddiges, with whom it flowered in October last. It is conspicuous for the large size of its leaves, and is in fact very near L. macrophylla, from which it differs in the petals being quite even, not undulated, and in the lateral sepals being much more exactly oblong. Added to which is a greater degree of bluntness on the tubercle of the lip. The beauty of the flowers of L. plana is far greater than in L. macrophylla, which wants the rich red-wine colour of the plant before us.

Fig. 1. represents the lip spread open; 2. the column, and 3. the pollen-masses with their slender caudicula.

Like other species of Lycaste this requires to be grown in turfy peat; the pot to be half filled with potsherds, and the soil considerably elevated above its brim. Care must be taken not to have its pseudobulbs imbedded in the soil, or they will damp off. In summer, after the plant has commenced growing, plenty of water should be given to its roots, and a slight syringing over head once or twice a day as the weather permits. The house should be shaded in sunny days, and the temperature kept about 80° by day, and 70° by night.

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* A fanciful name. Lycaste was a beautiful woman.

In winter, for a few weeks, very little water is required, especially in cloudy weather; if the house is kept moist it will be quite sufficient, and the temperature may be allowed to fall as low as 58° by day, and 50° by night.

36

by J. Ridgway 169 ...ly. July 1. 1843. J. Barclay

OXYLOBĬUM obovātum.

Wedge-leaved Oxylobium.

DECANDRIA *MONOGYNIA.*

Nat. ord. Leguminosæ, § Papilionaceæ.

OXYLOBIUM. *Botanical Register, vol.* 5. *fol.* 392.

O. *obovatum;* foliis latè obovato-cuneatis obtusis truncatis retusisve mucronulatis crassis coriaceis, racemis axillaribus densè capitatis multifloris, calycibus sericeo-villosis subferrugineis, ovario 4-ovulato. *Bentham in Lindley's Swan River Vegetation,* p. xii.

O. cuneatum. *Ib.*

As an addition to the hardwooded Australian shrubs with yellow pea-flowers this is acceptable, for it forms a pretty greenhouse plant which lasts in blossom for some time. It is the species intended by Mr. Bentham by his O. cuneatum, as we have ascertained by comparing it with one of the original specimens from which his specific character was framed; but we cannot regard it as distinguished from O. obovatum, and, as that name has been applied to it in the nurseries, we adopt it in preference. We have not seen the fruit.

Fig. 1. represents the calyx, and 2. a section of the ovary of the plant.

It is best cultivated in a soil which is rather poor; composed of very sandy loam and peat, and should be kept in a cold pit where it is quite secure from frost during winter. The pot must be well drained, and the plant should be seldom shifted after it is once established: when the shifting does take place, it should be a liberal one. Great care must also be taken that the plant never suffers for want of water; if this happens it hardly ever recovers; moreover, it should never be placed out of doors during the summer, but always be kept in a cold pit where the lights can be put on in wet or windy weather.

It is increased freely by seeds, or by cuttings, put in sand and placed on a gentle heat in the usual way.

The accompanying figure was made from specimens communicated by Messrs. Low and Co., of the Clapton Nursery, in April last.

Drake … Ridgway. 169 Piccadilly. July 1. 1843.   J. Barclay sc

DENDROBIUM cucumerinum.

Cucumber Dendrobium.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ, § MALAXIDEÆ.
DENDROBIUM. *Swartz*.

D. *cucumerinum* (W. MacLeay in litt. Lindl. in Bot. Reg. 1842, misc. 63.); nanum, intricatum, cæspitosum, ramis brevissimis articulatis cylindraceis monophyllis, foliis oblongis teretibus seriatim tuberculatis, pedunculis brevissimis trifloris, sepalis petalisque linearibus acuminatis obtusis, labelli trilobi lobis lateralibus triangularibus intermedio ovato crispato lamellis 5 undulatis in medio, clinandrio denticulato.

A native of New Holland, whence it was sent to Messrs. Loddiges from Mr. Wm. MacLeay. Of the locality for it in that country we are uninformed. It very much resembles a heap of little cucumbers, whence the name has been derived. Those bodies are *apparently* leaves, terminating the short articulated stems: but they require further examination, for they *may* be of the nature of pseudobulbs. This, however, is a point our opportunities do not permit us to settle.

The flowers appear from the base of the cucumbers in threes. They are dirty white, with long narrow sepals and petals striped with pink, and a three-lobed lip, whose middle division is crisped very much, and five wavy elevated ridges along its middle.

Fig. 1. represents the inside of the lip; 2. the column; and 3. the pollen-masses.

It is very much to be wished that the genus Dendrobium could be subdivided upon some such principles as have been lately applied to Maxillaria; for it consists of plants having an extraordinary diversity of appearance; and the New Hollanders in particular are quite a set apart. But we have sought in vain, up to the present time, to find good generic

characters, unless the surface of the labellum is taken advantage of; and for such a measure Botanists are hardly yet prepared. Instead, therefore, of speculating upon what may possibly be done hereafter with the genus, we take advantage of the present opportunity to print a sketch of the geographical distribution of New Holland Orchidaceæ by the late Allan Cunningham, the well known and lamented New Holland Botanist.

Notes, for the most part geographical, on the Orchidaceous plants of Australia. By the late Allan Cunningham.

In viewing the limited number of Orchidaceous plants hitherto observed by Botanists in Australia, and their geographic range on that extraordinary continent, as far as its coasts and internal country are known, I have, in order to account in some measure for the fact of a country, possessing so considerable an extent of intertropical coasts, which as far as temperature goes, may be said to be favourable to the production of the order, furnishing nevertheless so few of its epiphytic division, been led to consider the general configuration of the surface of the country; the open character generally of its forests; the attenuated ramification of its prevalent timbers; and the geological structure of the several coasts and regions in their vicinity—considerations equally referable to Filices and other portions of its cryptogamic vegetation—the same physical causes, that limit the existence of the one, especially of its Epiphytes, maintaining doubtless a like influence in regard to the extent and diffusion of species of the other.

It has been ascertained by Navigators and inland-travellers that the *highlands* of that continent are situated upon or near its shores, and that the most elevated country is upon the eastern coast. There they present a range of mountains which extends in the direction of the meridian, and stretching from Wilson's Promontory on the south (lat. 39°) to about Cape Weymouth of Cook on the north (lat. $12\frac{1}{2}$°), exhibit a continuous chain, which has been happily termed, the spine or backbone of the continent. This main range, in some latitudes, closely invests the coast-line, whilst in other parallels it retires to some distance from the shore, and there gives

space for the windings of streams which originate in its eastern flanks, ere they are discharged into the ocean. On other coasts, as upon one part of the north—upon the western (as inland from the Swan River)—and on parts of the southern shores of that continent, have been observed, ridges of hills; but these are isolated, or rising from the surface of a comparatively level country, present no trace of connexion, either with the great eastern chain, or with each other: and they are all of inferior elevation, no one exceeding 3000 feet of perpendicular height above the level of the sea, and most of them of not half that elevation. It may be here remarked, moreover, that with reference to the face of the interior, every observation of the traveller goes to support the theory, that although detached hills and even some ridges have been noticed on its ample surface, neither a chain of mountains, nor any elevated points to form the nucleus of a second main-range exist in the central regions of the continent, which will one day be rather found a vast level, through which its rivers, if they exist far from its eastern side, have, from the prevalent disposition of the country generally to drought, much to combat in their efforts to gain any sea coast.

From these brief remarks of the structure of the Australian continent, it will be seen that the eastern coast, or that of New South Wales, within and beyond the tropic, is the only shore to which we can look for Epiphytic Orchidaceæ and for Filices and other of the Cryptogamic class—in fact, the only one (if we except one or two points of the north coast, strictly so called) on which these orders of the vegetation of that great country have hitherto been found—its main chain, which in some parallels has been found to measure 6000 feet above the sea shore, furnishing in its ravines and rocky flanks, ample shade and humidity to the sustenance of those families; but in several islands in the Gulf of Carpentaria, says Mr. Brown, " having a flora of phœnogamous plants exceeding 200 species, I did not observe a single species of moss"—and this, evidently, because of the ordinary elevation of those isolated spots; the consequent little shade they afford; and the extreme dryness of the circumambient atmosphere.

With the requisite conditions of high temperature and con-

siderable humidity, which the country on its eastern coast, especially within the tropic, provides, it is very remarkable that so few of the Orchidaceæ growing on trees or rocks, should have come within the observation of botanists attached to voyages of discovery along that lengthened shore. In the whole line of eastern coast, only eleven Epiphytes were remarked by Sir Joseph Banks and Mr. Brown; and these have been referred by the latter able botanist to three genera; viz. Cymbidium, Dendrobium, and to a genus intermediate to them, named Sarcochilus. It may, however, be observed, that in the voyages of both Cook and Flinders, and indeed in that more recently, of King, upon that extensive coast, although landings were effected on many of its head-lands, and opportunities afforded for an examination of the botany of the immediate shores or adjacent country, yet perhaps no instance occurred of the remoter mountainous regions having been visited, where for the most part those remarkable vegetables are more probably to be found; and that many, yet to be discovered do exist, may be perhaps fairly inferred from the fact of there having been found at the Illawarra—a coast district on the south of Port Jackson,—and at Moreton-bay (in 27½ S°.), *nine* Epiphytes not known to botanists, prior to the exploration and examination of those most interesting points on the coast.

Of the terrestrial portion of the order, 104 species (now including Phájus grandifolius, *Lour.*, and Calanthe veratrifolia, *R. Br.*, lately found in the districts just mentioned) are known to be indigenous to the Australian continent; and of these three-fifths are natives of Port Jackson and the neighbouring country.

But ten species, of the genera Habenaria, Thelymitra, Microtis, Caladenia, Pterostylis, Cymbidium (Geodorum) and Phajus, have been detected in the warmer or intertropical parts of the shores of New South Wales; and as these plants are only to be met with during the rainy season, or in the period immediately subsequent, when every vegetable becomes reanimated and exerts fresh life, not a single terrestrial individual of the order was found on the north-western coast during the several visits of Captain P. P. King, whose surveys could alone be carried on during the easterly or dry

Monsoon, when the wind blows steadily *off* shore, and when all minor vegetation is wholly burnt up. Such however is the extreme aridity of that particular line of intertropical coast, that not a single Epiphyte was observed, and but two ferns; a Blechnum and a Gleichenia; and one Palm, a Livistona of Mr. Brown. Of the West coast, properly so denominated, little or nothing is known of its Orchidaceous vegetation. We however learn from the correspondence of Mr. Drummond, who has charge of the public garden at the Swan River colony, that many fine terrestrial species have been observed, in their respective seasons, in the vicinity of Perth and other parts of that settlement; but of what genera, we have yet to be informed. [This was written long before the publication of our Sketch of the Vegetation of Swan River.]

During the voyage of the Investigator in 1802, Mr. Brown discovered twenty species on the south coast belonging wholly to genera frequent at Port Jackson, with the exception of the beautiful Epiblema—a genera closely allied to Forster's Thelymitra. No Epiphyte has been seen upon that, generally speaking, very arid coast.

From what I have advanced, it will readily appear that the existence of Orchidaceous Epiphytes is confined to the eastern and perhaps to the northern shores of New South Wales; and as not the semblance of one (not even Dendrobium æmulum, *R. Br.*, so frequent on the trunks of Eucalyptus resinifera, and in the dry forests around Port Jackson) has been seen, either by myself or other travellers in the interior of that country, at least between the parallels of 28°. and 35°., their range westerly from the actual sea coast may be truly said to be limited to the main chain, or dividing range, beyond which, moreover, in a westerly direction, neither Alsophila australis, nor the Corypha of Port Jackson have ever been observed.*

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* The absence of arborescent Ferns and Palms in the interior on the western side of the Blue Mountain-ranges, is to be attributed to the want of shade from high lands, (those hills that are scattered on its surface being of inconsiderable elevation, and generally of a sandstone rock,) and to the nonexistence of dense humid forests. The whole internal country traversed, beyond the meridian of 149°., declining westerly to a low level region, being

Considering the extent of interior known, at the present day, in or about the parallel of Port Jackson, as also on the north and south of that degree of latitude, the terrestrial part of the family may be said to be comparatively rare in the inland country. In their journeys through it at various seasons, botanic travellers have observed but thirteen species; and the whole of them are of genera, and indeed for the greater part, of species, frequent on the sea coast at or near Sidney.

These genera are Diuris, Orthoceras, Calochilus, Caladenia, Lyperanthus, Pterostylis, Gastrodia and Dipodium. In fine, as a general remark on the geographical range of the family in Australia, it may be observed, that as the terrestrial species are greatly influenced by rains that *may* fall in the *season* when they would under such favourable circumstances appear above the soil, and as those whose localities are inland, beyond the range of those genial coast-showers which occasionally fall in the midst of a long period of dry weather, are wholly prevented from appearing above ground for two or three years, to which extent the droughts in that country have continued; these facts are sufficient to explain why it is that this group also of the order in Australia, is so much more abundant on its immediate shores, than it is either in the up-country, as those parts of the colony a little distant from the coast are termed, or the more remote interior.

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exceedingly thinly and generally lightly wooded, and thus its ample surface being greatly exposed to the rays of the sun, an extreme dryness of atmosphere is engendered, by no means favourable to the existence of a shade-loving vegetation, affecting a *lower* temperature, but *cooled* simply by the surrounding air being, to a certain degree, permanently charged with humidity.

Barclay

HYBRID Narcissi.

For the very curious information conveyed in the following pages, we are indebted to the Honourable and Very Rev. the Dean of Manchester, whose experiments on hybridizing plants have now assumed a precision and importance which could scarcely have been anticipated from the early researches into this subject. We particularly commend the facts here detailed to the attention of those Botanists who see a genus or species in any little variation from the habitual condition of a plant.

Fig. 1. Narcissus, Diomedes, var. Crichtoni. Ex N. Ajace minore, (Bot. Mag. 6.) polline N. Hermiones æquilimbæ, Melitensis (Herb. Am. pl. 48.); scapo humili bifloro, stylo tubum superante coronâ incluso, filamentis tribus $\frac{1}{8}$ unc. infra faucem tubi tribus medio propiùs insertis tenuibus, antheris tenuibus semuncialibus, perianthio luteo. Genus Diomedes, *Haw*.

Fig. 2. Narcissus, Ajax, var. pallidus. Ex N. Ajace minore, polline N. Ajacis moschati. Perianthio subconcolore pallido.

Fig. 3. Narcissus Spofforthiæ; pedunc. $\frac{3}{4}$ unc. tubo $\frac{13}{16}$ unc. limbi lac. latis pallidè sulphureis $\frac{7}{8}$ unc., coronâ brevi $\frac{11}{16}$ unc.-latâ crenatâ plicatâ subsexlobatâ aurantiacâ medio lutescente, stylo tubum æquante, filamentis adnatis, antheris tribus exclusis tribus semi-inclusis. Ex N. incomparabili v. coronæ margine aurantiaco (Queltia aurantiaca, *Haw.*) polline N. poetici v. stellaris.

Fig. 4. Narcissus Spofforthiæ v. spurius. *Ex eâdem capsulâ cum præcedente;* coronâ luteâ subsemunciali magis angustatâ limbi laciniis angustioribus $1\frac{1}{8}$-uncialibus.

Fig. 5. Narcissus, Queltia, incomparabilis; coronæ margine aurantiaco. Q. aurantiaca, *Haw.* Ex N. Ajace pseudonarcisso v. Eboracensi, polline N. poetici v. stellaris. Ex eâdem capsulâ duæ cor. marg. aurant. cæteræ margine concolore; Queltia aurantiaca et Q. incomparabilis, *Haw.*

Fig. 6. Narcissus, Queltia, subconcolor; ex N. Ajace minore, polline N. poetici v. stellaris. Tubo $\frac{7}{8}$ unc. limbo unciali luteo, coronâ parum saturatiore subsemunciali crenatâ. Ex eâdem capsulâ plures, cum duabus coronæ margine aurantiaco, alterâ perianthio et scapo majore. Genus Queltia, *Salisb.*

These hybrid Narcissi have been raised with many others from seed at Spofforth, and are amongst those which have already flowered. Eight years ago a collection of the various

known Narcissi was made there, for the completion of an arrangement of Amaryllidaceæ; and, from a desire of seeing the fruit of the intermediate kinds which formed the genera Queltia, Diomedes, Philogyne, Tros, Schisanthes, and the yellow portion of Helena of Haworth, application was made for seed to various cultivators, and it was found that no one had ever known a seed to have been produced by any one of the above-mentioned plants. The white-limbed species of Haworth's Helena are small Italian local varieties of N. poeticus, from which by the pollen of jonquill it is presumed that the sterile tenuior and planicorona may have been produced. The seeds described, as those of N. gracilis, (Herbert Am. 316.) proved to be jonquill seeds erroneously communicated by the cultivator. On further investigation of the subject it appeared that, although most of these plants had been cultivated above 200 years, their places of abode were unknown to Clusius and Parkinson, and a suspicion arose that they were artificial breeds which some cultivator had imposed upon the public as mountain plants above two centuries ago, and an advertisement, stating that suspicion, and requesting a communication of their seeds, was published by the author; and, the seed of N. odorus being named in the list of seeds in the bot. gard. at Naples, application was made to Prof. Tenore for some. The result has been that, although some gentlemen in remote parts have kindly contributed bulbs of different sorts, no seed of any such Narcissus has been sent. Prof. Tenore answered, that, although named in the list, N. odorus bore no seed at Naples,* and Mons. Deslongchamps, though, amidst the information which he obligingly gave concerning the French Narcissi, he asserted that it was certainly indigenous in France, admitted that he had never heard of its producing seed. The variety also, found in Madeira, grows under chesnut trees which are not indigenous, and bears no seed. In the spring before the publication of Amaryllidaceæ,

* A later communication from Pr. Tenore alludes to the production of seed by N. odorus at some former period in the Neapolitan garden, but it does not appear to have been sown, nor is it clear whether the fact is certified by his own recollection. He suggests that it might have been produced by the pollen of one of its parents, if the plant is an hybrid. He likewise states that Crocus Imperatonianus does not grow on the hedge-banks near Naples, and never descends lower than 2000 feet above the sea. W. H.

the seed, from which the plants here figured were raised, had been obtained; but, from the possibility of the admission of natural pollen in spite of all precautions, it was thought best not to broach therein suspicions which could not at that time be verified. The suspicion was that N. incomparabilis, or the genus Queltia of Haworth, in all its varieties, was made between Ajax and N. poeticus; N. odorus, or genus Phylogyne of Haworth, in all its varieties, between Ajax and jonquill; Q. Macleai, or Diomedes of Haworth, between Ajax and Hermione; N. Gracilis and tenuior, or Helene of Haworth, between N. poeticus and jonquill; N. orientalis (his Schisanthes) between incomparabilis and Hermione; Hermione bifrons and compressa between H. Tazetta and jonquill; Hermione Bazelman major and minor, Cypri, flexiflora, and Trewiana, and the four-flowered N. biflorus of the Hort. Soc. between Hermione and N. poeticus; and the result of experiments enables me to assert that those suspicions are now verified as to the three first cases, and that I entertain no doubt concerning the latter. Bazelman minor evidently derives the orange margin of its cup from N. poeticus. Parkinson indeed mentions that incomparabilis produces rarely a few seeds, but he does not say, whether the seeds he saw were sown, or what they produced. It is not meant to assert, that there is any physical impossibility in these cross-bred plants reproducing themselves by seed, but that their general habit is sterility, and that no such reproduction is known to have taken place, and that all must be expunged from the botanical catalogue of natural genera or species.

Fig. 5. is the produce of the wild Yorkshire daffodil, A. pseudonarcissus, by pollen of N. poeticus, and is decidedly a variety of the plant called N. or Q. incomparabilis. Fig. 3. is the produce of incomparabilis by the same N. poeticus, that is two generations from the daffodil by the poetic narcissus; and in it the change is complete from the form of stamina in the daffodil to that in the true Narcissus, and it is evident, that one cross more (or at least two further crosses) would, out of the wild daffodil, produce the true Pheasant-eye Narcissus. The pollen of this doubly-crossed plant is also fertile, for, though I have never seen natural seed of N. montanus (of which the native place is uncertain, and which might perhaps be made between the wild N. dubius of France and Ajax mos-

chatus minor, N. candidissimus of Red.), I obtained seed both from it and A. minor by the pollen of fig. 3. The pollen of N. montanus however readily fertilizes Ajax and Narcissus. N. dubius in its wild state is two or three-flowered, and in a weak one-flowered state was the N. pumilus of Redouté, of which no trace can now be discovered.

I have flowered also the produce of a yellow Ajax by jonquill raised by J. T. Alcock, Esq. which had precisely the foliage and flower of N. odorus v. calathinus minor, Am. 314. which variety (and not the larger as there stated) is the Campernelli of Haworth. I have raised younger plants of like breed from various sorts of Ajax, shewing the foliage of odorus, which have not yet flowered. I have also flowered what I may call N. Ajax semiqueltia, a single seedling from A. pseudonarcissus v. Eboracensis by pollen of Q. incomparabilis, a very neat Ajax-like plant, of which the cup is rather ventricose below, and compressed about the middle, with a regular crenate margin, and of the filaments three are inserted just below the middle, and three lower, much as in N. Sabini, which I believe to be a cross between Q. incomparabilis alba and Ajax tubæflorus, with which last it agrees in the superior breadth of its leaves, and the roundness of its seed-pod. N. Sabini is naturally barren, but I have seedlings from it by N. poeticus. The pollen of Narcissi cultivated long by offsets becomes obsolete and sterile, and I can obtain no produce from pollen of Soleil d'or of the Gardens, Bazelman, double Roman, orientalis, &c.; but taking proper precautions to avoid exposure to strong sunshine, or high temperature, I can obtain seed from every flower of Ajax minor, N. poeticus stellaris, and other free-seeding species, by any other Narcissus which has not become sterile by age.

The Ganymedes are nearly sterile, probably through long cultivation by offsets, and I have no certain cross from them, but the plant, which has been named N. cyclamineus from a figure Rudb. Theat. flor. 20, was probably raised between a Ganymede and Ajax, though it has been long lost. I have failed in every attempt to cross Corbularia with the Narcissi, and I believe it to be a true genus distinguished by assurgent anthers. A gentleman has just informed me that, operating at my request, he has a pod of Corbularia in pro-

gress by some other Narcissean plant, but I doubt the accuracy of his experiment, from the repeated results of my own. Where the sterile Narcissi are found in a wild state, they are remnants of ancient gardens, or found on spots where a bulb has been accidentally dropt and found a congenial situation. The double daffodil is accordingly found wild in many places, and the fertile daffodils of England and Wales may have been introduced by Roman or even Phœnician gardening. They have more the appearance of having been originally located, than of having naturally chosen their own localities. The exact Roman Tazetta is naturalized on Lady Grenville's estate in Cornwall.

It will be observed that the Narcissi seem to be quite anomalous plants. I know of no genus, which exhibits such a diversity in the most important parts, as Ajax with its enormous cup, straight anthers, and robust awl-shaped filaments inserted at its base, and Narcissus verus with the short wide cup, curved anthers, and filiform filaments inherent in the texture of the tube, still less in which such plants are capable of interbreeding ad infinitum, and imposing their mongrel produce upon botanists as natural species, and even as genera connecting the widely separate forms of the true natural sections or species. How are we to deal with them in our nomenclature? In truth Ajax, narcissus verus, Hermione, jonquilla, Ganymedes, should be considered as species, of which there are (at least of the three first) a vast many distinct and permanent local varieties. It may perhaps be convenient, as the genus is so anomalous, to set them down as sections, but in truth I consider the difference between a botanical species and permanent local variety to be little more than nominal and arbitrary. I impregnated nine flowers of A. minor by jonquill this spring, and others by a fertile Hermione, N. montanus, and Spofforthiæ, and all have produced strong seed pods. Some of the old crosses seem to have been lost, and it is not clear that any decidedly new intermixture has been raised till lately in the last two centuries; which gives reason to suppose that M. Franqueville of Cambray, mentioned by Parkinson, or some other cultivator, at or before that period, had discovered the secret of the cross-breeding, and made a profit by the sale of his novelties, and that his secret died with him. It is now known that the late Mr. Rollisson of Tooting raised many Ericæ by cross-breed-

ing, as for instance jasminiflora between ampullacea and Aytoni, as well as many others which were figured by Andrews as new species from the Cape, but which will not be found amongst any specimens of African plants. The cultivator thought his plants would have been undervalued, if their true origin had been declared, and he would have lost the monopoly. It will be observed, that the three lowest figures 1, 2, and 6, belonging to three genera of Haworth, are from sister flowers by the application of different pollen; that, while fig. 5 and its companions, which are not figured, furnish two species according to him out of one seed-pod, fig. 3 and 4 would have served him for two genera out of one seed-pod. The late Mr. Haworth's last words to the writer were, "I do not thank you for your mules;" the public will however perceive, that, instead of confounding the Botanist as he fancied, while they embellish the garden, they offer the surest test of the accuracy of scientific divisions. It is desirable to call the attention of the humblest cultivators, of every labourer indeed, or operative, who has a spot of garden, or a ledge at his window, to the infinite variety of Narcissi that may be thus raised, and most easily in pots at his window, if not exposed too much to sun and wind, offering him a source of harmless and interesting amusement, and perhaps a little profit and celebrity. The six anthers should be carefully taken out before the flower, which is to bear the seed, blows. This may be done through a slit cut in the tube; and the yellow dust from another sort must be applied to the point of the style. The two-flowered N. biflorus, which has no ovules, may be an accidental mule, barren from extreme old age, (perhaps many centuries) as well as from hybridity. It will be remembered, that many years ago the writer asserted that Crinum amabile was a sterile mule. He can now state that, although it has been long introduced into Jamaica and flourishes there exceedingly, it is as sterile there as in the East, and has never been known to produce a seed. It was found impossible to make Mr. Plant's alleged monsters vegetate at Spofforth. They turned mouldy on the first application of moisture, and no care could stop their decay. It is to be hoped he may have been more successful with the root he reserved.—W. H.

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CLOWESIA rosea.

Pink-flowered Clowesia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.

CLOWESIA. *Supra misc.* 39. *Flos* subglobosus, patulus. *Sepala* subæqualia; lateralia paulò obliqua, in mentum breve producta, basibus connatis. *Petala* conformia, latiora, fimbriata. *Labellum* concavum, carnosum, cum labello continuum nec articulatum, obsoletè trilobum, margine in fimbriam glandulosam laceram solutum, disco læve. *Columna* semiteres, clavata, utrinque apice obtusa cornuta; clinandrio alto carnoso serrato. *Stigma:* sinus transversalis. *Pollinia* 2, linearia, dorso sulcata, glandulâ subrotundâ, caudiculâ membranaceâ clepsydræformi!——Caulis *carnosus, foliosus.* Scapus *radicalis, multiflorus, erectus.*

Clowesia rosea.

A short time since we gave some account of this beautiful plant, which we then knew only from some flowers and a description furnished by a correspondent. Since then we have had better means of examining it.

It is a native of Brazil, and first flowered at Broughton Hall, near Manchester, with the Rev. Mr. Clowes, a zealous cultivator of Orchidaceæ, after whom it is named. At a later period (March last) we received it from Sion Gardens, by permission of His Grace the Duke of Northumberland, and from that plant the accompanying figure was taken. Up to the present time we have heard of it nowhere else.

It is very like a Catasetum in habit. The stems are from 2½ to 4 inches long, ovate, clothed with the remains of the bases of leaves. The leaves, which I have not seen, are said to be three, lanceolate, ovate, acuminate, and at the point twisting a little to one side. The inflorescence proceeds from the base of the stems (not apex as was formerly stated on the authority of Mr. Clowes's gardener, who thought apex signified the bottom), and consists of five or six, probably more, erect delicate white flowers tinged with pink. They are

remarkable for having their petals and the end of the lip broken up at the margin into numerous delicate glandular fringes, which give them a very rich and beautiful appearance.

As a genus Clowesia is perfectly distinct from every thing previously described. Its flowers being extended a little into a chin in front, suggest its belonging to the Maxillaridous division; but its whole habit and the singular apparatus of its pollen-masses oppose such an arrangement. The latter organs rest on a broad viscid gland like that of a Catasetum, but the caudicula, or part that connects the gland and pollen-masses, is broad, thin, and contracted in the middle so as to resemble an hour-glass; but whether that is the usual structure, or as we suspect merely consequent upon the separation of the caudicula from the anther-bed, we have not had an opportunity of ascertaining. Upon the whole it is probable that Clowesia must stand in the same division as Catasetum.

Fig. 1. represents the lip seen from above; 2. the column; 3. the pollen apparatus seen in front, and 4. the same behind.

Miss Drake del. Ridgway 169 Piccadilly. Aug 1. 1843. J. Barclay sc.

CYTĬSUS Weldenii.

Dalmatian Laburnum.

DIADELPHIA *DECANDRIA.*

Nat. ord. Leguminosæ, § Papilionaceæ.
CYTISUS. L.

C. *Weldenii;* fruticosus erectus, foliis ternatis petiolatis, foliolis ellipticis integris basi cuneatis apice obtusis retusisve glabris, racemis terminalibus pedunculatis pyramidatis strictis, pedicellis cano-villosis, calycibus campanulatis trilobis: lobis tomentoso-ciliatis obtusis, corollis glabris, carina villoso-sericea, leguminibus glabris stylo mucronatis. *Walpers Repertorium Botanices Systematicæ, vol.* 1. *p.* 633.
C. Weldenii. *Host. Flora Austriaca,* 2. 339. *Bot. Reg.* 1839. *misc. no.* 122. *Loudon Arb. Brit. p.* 218. *t.* 343.

How different this species is from the Scotch Laburnum will be now apparent from the accompanying figure taken from a plant which flowered this spring in the garden of the Earl of Ilchester, in Dorsetshire. It is obviously distinguished by its flowers growing in short erect racemes and not in long drooping ones.

Although from its similarity in foliage to the Laburnum, it is liable to be confounded with that plant, yet it is in fact nearer Cytisus sessilifolius, of which it may be almost regarded as a gigantic form. To what size it will grow is unknown; probably eight or ten feet high; but on its Dalmatian mountains it is said to be a bush.

The poisonous quality of the common Laburnum is still more concentrated in this species, as we are told by the German botanists. The General Baron Welden, after whom it is named, assures us that its very flowers produce headache, and that the goats which feed on it produce poisonous milk. [But how is it then that the goats themselves do not die?]

RENANTHĒRA matutīna.

Morning Renanthera.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § VANDEÆ—SARCANTHIDÆ.
RENANTHERA. Bot. Reg. vol. 14. *t.* 1131.

R. *matutina* (Lindl. Gen. & Sp. Orch. p. 218. *Aerides matutina ?* Blume Bijdr. 1. 366. tab. 24.); racemis densis cylindraceis longipedunculatis paniculatis simplicibusque, sepalis petalisque obovato-linearibus obtusis, labelli limbo ovato acuto calcari obtuso subæquali.

Although this plant bears no comparison with the magnificent Chinese species on which the genus was founded, yet it is very far from being unworthy of cultivation. Indeed, by the number of its flowers and the richness, though not brilliancy, of their spots, it makes up in some measure for their want of size.

The first mention that is made of it is in Blume's *Bijdragen*, where it is referred with doubt to the genus Aerides, and said to be found in flower in the month of September, on trees at the foot of Mount Salak, in Java. Mr. Cuming afterwards gathered it in the Philippines, but by no means in so luxuriant a state as the specimen now represented, which flowered at Chatsworth in December last, and was kindly placed at our disposal by His Grace the Duke of Devonshire. We have also received it from Messrs. Rollissons.

Fig. 1. represents the lip; and 2. the pollen apparatus of this plant.

1

RONDELETIA longiflōra.

Long-flowered Rondeletia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CINCHONACEÆ.
RONDELETIA. Vol. 22. *fol.* 1905.

R. *longiflora;* foliis lato-lanceolatis brevi-petiolatis lineatis axillis venarum barbatis, stipulis margine callosis incisis, pedunculis trifloris axillaribus terminalibusque in thyrsum aggregatis, corollæ tubo elongato fauce inflatâ nudâ, antheris subexsertis.
R. longiflora. *Chamisso in Linnæa,* 9. 240. *Hooker Bot. Mag. t.* 3977.

If Rondeletia odorata, already figured at plate 1905 of our 22nd volume, expresses the true character of the Rondeletia of Plumier, as we presume it does, then it is clear that this plant is placed in a wrong genus; for it wants the deeply enclosed stamens and faucial cup of R. odorata. However, we will not here disturb the existing nomenclature, especially since the species now before us, whether a Rondeletia or not, is well described under the name of R. longiflora.

It is a shrub of great beauty, introduced by Messrs. Veitch and Son, of Exeter, from South Brazil, and is particularly well suited to greenhouse cultivation, because it does not grow to be a large and unmanageable specimen. In fact it resembles the old Bouvardia triphylla in its habits, and may be managed in the same manner. Nevertheless, we presume that it may be grown to some size if desired, for our wild specimens, collected by Sello, have the appearance of coming from a large bush.

Fig. 1. represents the ovary and calyx when cut perpendicularly.

Pub by J Ridgway, 169 Piccadilly, 1840

Barclay Sc.

ONCIDĬUM unifl̄orum.

One-flowered Oncidium.

GYNANDRIA *MONANDRIA*.

Nat. ord. Orchidaceæ § Vandeæ.

ONCIDIUM. Swartz.

Sect. II. Euoncidium; Heteranthium. Folia plana; tetrapetala; micropetala. Sertum Orchidaceum, t. 48.

O. *uniflorum* (Booth in litt.); cæspitosum, pseudobulbis angustis linearibus squamatis sulcatis monophyllis, foliis lineari-lanceolatis obtusis undulatis apiculatis, scapo unifloro folio multò breviore, sepalis lateralibus basi connatis petalisque obovato-oblongis undulatis herbaceis, labello pandurato lobo intermedio maximo emarginato lateralibus nanis rotundatis sinu fimbriato, cristâ pubescente polydactylâ laciniâ utrinque liberâ solitariâ, columnæ alis truncatis erosis.

This curious little plant, allied to the rare Oncidium barbatum, inhabits trees in the forests of the Organ Mountains of Brazil, where it was found in April 1841, by Mr. Gardner, to whom I am obliged for specimens.

For its introduction to gardens we are indebted to Sir Charles Lemon, who received it from Brazil in August 1841, through Lieutenant Turner, of H. M. Packet "Ranger," and in whose collection at Carclew it flowered in November 1842. Mr. Booth has favoured us with a drawing, and the following account of it.

"*Pseudobulbs* when young roundish oblong, covered with several ovate, acuminate, sheathing scales; but when full grown they are ovate-oblong, compressed, rather more than an inch in length, and about 3-8ths of an inch in width, becoming slightly furrowed, one-leaved. *Leaves* oblong, lanceolate, acute, from three to four inches long, and scarcely half an inch broad, thin, and a good deal recurved, of a deep green. *Scape* one-flowered, issuing from the base of the leaf, and so

short as to be almost hidden by the upper scale of the pseudobulb which partly embraces it. *Pedicel* round and slender, an inch long, somewhat curved and slightly channelled, of a pale green, with a small, thin, pale brown-coloured bractea at its base. *Flowers* large in proportion to the size of the plant and very handsome, continuing a long time in perfection. *Sepals* of a dingy brown, slightly spotted, oblong lanceolate acute, much undulated at the margin, and spreading so as to become recurved. They are all nearly of the same size and form. The two lower ones are undivided and narrow at the base. *Petals* similar in colour to the sepals, but rather shorter, and almost twice as wide, recurved at the point, and undulated at the margin. *Labellum* 3-lobed, of a bright yellow, excepting around the crest, which is blotched and spotted with blood-red spots. The middle lobe is large and spreading, somewhat cordate and apiculated, having a part of the outer edge on one side of the point folded a little way over that of the other. The margin is finely marked and undulated back to the crest, where it becomes of a brown colour, and is delicately fringed on either side. The lateral lobes are also much undulated and very short. They are nearly as broad at the extremity as they are long, and diminish gradually towards the crest at their base. *Column* erect, rounded at the back, and hollowed out in front with the spreading undulated wing on each side of the opening. In front of this is a yellowish waxy process 2-lobed, and a little elevated. *Anther case* 1-celled, hooded and conical, so as to resemble a small cup, with a minute red spot in front, where it terminates in a point. *Pollen-masses* 2, roundish-ovate, deep yellow, attached by a pale coloured elastic membrane to the small red coloured body just mentioned.

"The plant appears to grow in large masses on the branches of trees, to which it is attached by its numerous round, filiform, ash-coloured roots. It is grown at Carclew in a warm moist stove, suspended from one of the rafters."

STANHOPEA Martiana; *var.* bicolor.

Two-coloured Von Martius' Stanhopea.

GYNANDRIA *MONANDRIA*.

Nat. ord. Orchidaceæ, § Vandeæ—Maxillaridæ.
STANHOPEA. *Supra fol.* 1800.

S. *Martiana;* labello medio parùm constricto, hypochilio brevi sessili scrotiformi, epichilio oblongo-lineari obscurè 3-dentato, cornubus rectiusculis apice cirrhosis, columnæ pubescentis subclavatæ marginibus parum dilatatis.

S. Martiana. *Bateman in Bot. Reg.* 1840, *misc.* 109. *Orch. Mex. and Guat. t.* 27.

A native of Mexico, discovered by Baron Karwinski in 1827, and afterwards by M. Galeotti. It is one of the most distinct and magnificent species of the genus, and in the magnitude of its blossoms is second only to *S. tigrina.* The sepals are straw-coloured, or almost white, faintly and sparingly marked with clusters of little vinous dots; the petals appear transparent white, with large spots of intense crimson; the lip is also a clear ivory white, except a slight discoloration at the base. The horns are of great size and strength, and taper into a kind of tendril, besides which they are exactly parallel with the epichilium, the form of which is almost linear, the two edges being as nearly as possible parallel with each other, and not a great deal broader than the column; a mark by which the species is immediately recognized.

The present variety is a lovely plant, with large pure white flowers, richly but sparingly spotted with crimson. In the original S. Martiana the sepals are straw-coloured, and much more dotted with purple. Messrs. Rollisson have lately flowered it, and believe they obtained it from Mexico. It is as fine a thing as S. tigrina would be if its flowers were white, and is very sweet-scented.

Now that the number of species of Stanhopea has been greatly increased, and that opportunities of examining them in a living state have occurred, it has become desirable that the genus should be reconsidered, partly for the sake of defin-

ing the species with more exactness, partly for the sake of determining which of the garden plants are mere varieties, and also with a view to the correction of a few errors. For this reason the following enumeration of the species has been prepared, in drawing up which I am most particularly indebted to Mrs. Lawrence, Mr. Rucker, and Messrs. Loddiges.

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* *Labello apice integro.*

1. S. *insignis* (Frost in Bot. Mag. tt. 2948 & 9. Lodd. Bot. Cab. t. 1985. Lindl. in Bot. Reg. t. 1837. Gen. & Sp. Orch. no. 1.); hypochilio globoso anticè intruso basi et apice fisso mutico intus radiatim verruculoso extus ecarinato epichilio æquali, epichilio subrotundo-ovato integro, cornubus subtriangularibus falcatis incurvis brevioribus, columnâ latissimè alatâ.——*Brazil.*——This species is remarkable for the globose form of the base of its lip, by which all its varieties are readily distinguished. It is also in almost all cases sprinkled with small violet spots, which reach even to the tip of the labellum. In colour, however, it varies very considerably. The winged margin of the column is wider than in any other known species.

2. S. *Devoniensis* (Lindl. Sert. Orch. t. 1. *S. maculosa,* Floral Cabinet, t. 121? *Maxillaria lyncea,* Lindl. Gen. & Sp. Orch. p. 151. *Coatzonte Coxoahitl seu Lyncea,* Hernand. Thesaur. Rer. Med. Nov. Hisp. p. 266. *Anguloa Hernandezii,* Kunth. Synops. 1. 332.); hypochilio subgloboso anticè gibboso basi mutico epichilio æquali, epichilio ovato integro v. obsoletè tridentato, cornubus falcatis incurvis æqualibus, columnâ marginatâ.——*Mexico.*——Very much like *S. tigrina,* from which it is distinguished by the undivided middle lobe of the lip, and the almost wingless column. To *S. insignis* it approaches in form, although so different in colour; but the lower half of the lip is prominent in front instead of being pressed backwards. The flowers are yellow, with deep crimson-brown blotches; the lip is white with a few spots here and there, and a deep purple stain over half the lower part. Little doubt can be entertained that *S. maculosa* is a bad specimen of this, for although its epichilium is described as 3-lobed, it is represented as perfectly entire.

3. S. *oculata* (Lindl. Gen. & Sp. no. 5. Bot. Reg. t. 1800. *Ceratochilus oculatus*, Lodd. Bot. Cab. t. 1764. *S. Lindleyi*, Zuccarini mss.); bracteis ovariis longè acuminatis duplò brevioribus, hypochilio unguiculato elongato cymbiformi antice intruso apice carnoso apertè sulcato mutico basi ecorni intus lævi extus bicarinato, epichilio ovato integro, cornubus semiteretibus ascendentibus acutis, columnâ latè alatâ.——*Mexico* (not Brazil).——The flowers are usually lemon-coloured, with a large number of lilac spots on the sepals, a smaller number on the petals, a deep yellow eye, and two, or occasionally four, large dark brown spots on the side of the lower part of the lip, which is very much lengthened out as if unguiculate; by the latter circumstance it is chiefly known from *S. Wardii.* Many supposed varieties occur in the gardens, varying in colour, and in the spotting of the lip. There is one, called *Barkeriana*, which is more remarkable than the others; it looks like *S. insignis* with the lip of *S. oculata*, and is very handsome; the sepals, petals, and column are covered with numerous purple freckles rather than spots, which, as the flower fades, run together, as if their colouring matter were dissolved; so that at last the flower becomes of a dull wine-red tint. This is apparently the *S. Lindleyi* of Zuccarini. Most of the varieties are very sweet-scented.

4. S. *Bucephalus*, (Lindl. Orch. no. 2. *Epidendrum grandiflorum*, Humb. & Bonpl. Pl. Æq. p. 94. t. 27. *Anguloa grandiflora*, H. B. K. nov. gen. et sp. 1. 345.); bracteis ovario subæqualibus, hypochilio unguiculato cymbiformi anticè intruso apice carnoso apertè sulcato mutico basi longè angustato ecorni intus lævi extùs bicarinato, epichilio subrotundo-ovato cuspidato integro breviore, cornubus gracilibus teretibus brevioribus, columnâ basi angustissimâ sursùm alatâ.——*Quito.*——This has deliciously sweet-scented flowers, which are pale yellow, with a pair of dark eyes at the base of each petal, and a few crimson dots elsewhere on them and the sepals. The lip is deep yellow, and spotless on the hypochilium, while the epichilium and column are thickly sown with crimson dots. It is certainly the Epidendrum grandiflorum of Humboldt, hitherto erroneously referred to S. insignis. Mr. Hartweg, who found it near Quito, has introduced

it into the garden of the Horticultural Society. It is very near *S. oculata*, from which it differs in the form of the lip and especially in the very short ovaries, a character pointed out to me by Mr. Loddiges.

5. S. *Wardii* (Loddiges in Lindl. Sertum Orchidaceum, t. 20.); bracteis ovariis longè acuminatis duplò brevioribus, hypochilio exactè oblongo depresso sessili antice intruso apice carnoso fisso (nec apertè sulcato) vix dentato, basi utrinque angulato, epichilio subrotundo-ovato integro, cornubus semiteretibus falcatis incurvis subcirrhosis, columnâ latè alatâ.——*Central America.*——This very fine plant is quite distinct from any of the supposed varieties of *S. oculata;* differing in the furrow of the anterior part of the hypochilium being closed up and not open, and in the exactly oblong form of the hypochilium; also from *S. Ruckeri* in the absence of a strong tooth turned inwards from the apex of the cavity of the hypochilium; besides which the angular condition of the base of the hypochilium indicates an approach to *S. quadricornis.* The lip is pale yellow, with a few fine specks, a deep yellow hypochilium, the whole lower part of which is a deep chocolate brown. The flowers are deliciously sweet.

6. S. *Ruckeri;* bracteis ovariis longè acuminatis duplò brevioribus, hypochilio obovato sessili anticè intruso basi mutico apice carnoso apertè sulcato et dente valido inflexo aucto, epichilio subrotundo-ovato integro, cornubus semiteretibus incurvis, columnâ latè alatâ.——*Mexico.*——This is a noble species, with the habit of *S. Wardii*, and its general colour, except that it is paler; but the epichilium is beautifully stained with pink, and the eyes of the hypochilium are very faint. It is distinctly separated by the peculiar form of the hypochilium, which instead of being oblong is so much narrowed to the base as to acquire an obovate form; by the entire want of lateral teeth on the margin; and by the presence of a very strong inflexed tooth, in which the wide, not closed up, fissure of the apex of the hypochilium terminates. We have received it from Messrs. Loddiges, and have named it in compliment to Sigismond Rucker, Esq. Junr., of Wandsworth, whose skill in the management of this noble genus is well known to the cultivators of Orchidaceæ.

7. S. *graveolens* (Lindl. in Bot. Reg. 1840, misc. 125); hypochilio subcompresso saccato intus glaberrimo anticè bidentato et inter dentes profundè sulcato, epichilio subrotundo-ovato integerrimo, cornubus acuminatissimis incurvis, columnæ alis latissimis subquadratis.——*Peru?* ——A species with the habit of *S. saccata*. The sepals and petals are of a delicate straw colour; the lip at the base, and the central parts of the flower generally are of a deep rich apricot yellow, while the horns and upper end of the lip are like ivory turning yellow. Its odour is so powerful that it communicates itself to the fingers after touching the flowers, and like many other smells, though agreeable in itself, is offensive from its intensity. These remarks are borrowed from the notice formerly given of the plant in the Botanical Register, for by some accident neither drawing nor specimen were preserved of the species.

8. S. *quadricornis* (Lindl. in Bot. Reg. 1838, t. 5.); hypochilio oblongo basi bicorni antice saccato apice carnoso excavato mutico, epichilio ovato integro æquali, cornubus incurvis teretibus brevioribus, columnâ latè alatâ.——*Central America.*——This has something the appearance of *S. oculata;* but its lip has a rich crimson stain at the base, instead of a pair of deep brown spots, and it has two prominent horns standing erect on the lower edge of the cavity of the hypochilium. This brings the species near *S. eburnea*, which is however very different in other respects. It is one of the finest of the genus.

9. S. *eburnea* (Lindl. in Bot. Reg. t. 1529. Gen. & Sp. no. 4. Bot. Mag. t. 3359. *S. grandiflora*, Lindl. l. c. no. 3. *Ceratochilus grandiflorus*, Lodd. Bot. Cab. t. 1414.); labello oblongo vix medio constricto, hypochilio pone basin bicorni, epichilio ovato-oblongo obtuso, metachilio duplò longiore solido plano-convexo anticè truncato bidentato, columnâ longissimâ apice tantum latè alatâ.—*Brazil* and *Trinidad.*——This very distinct and beautiful plant always has the sepals and petals pure ivory white; but in the colour of its lip it varies, sometimes being nearly colourless, except in the cavity of the hypochilium, which is crimson, and occasionally having deep rich purple stains all over the lip, except the middle lobe. Flowers extremely sweet.

* * *Labello apice tridentato.*

10. S. *tigrina* (Bateman Orch. Mex. & Guat. t. 7.); hypochilio subrotundo intus lamellis glandulosis radiato basi mutico apice sulco brevi aperto dente valido inflexo, epichilio ovali æqualiter tridentato cornubus falcatis æquali, columnâ lanceolatâ latissimè alatâ.——*Mexico*, near Xalapa. ——Much the finest of the genus. Flowers deep orange yellow, as much as eight inches in diameter, richly blotched with purplish brown. The excessively broad column, and the radiating toothed lamellæ within the cavity of the lip, are peculiar characters.

11. S. *Martiana* (Bateman in Bot. Reg. 1840. misc. 109. 1843. t. 44. Orch. Mex. & Guat. t. 27.); labello medio parùm constricto, hypochilio brevi sessili scrotiformi, cornubus apice cirrhosis rectiusculis, epichilio oblongo-lineari obscurè 3-dentato, columnæ pubescentis subclavatæ marginibus parùm dilatatis.——*Mexico*.——A most lovely plant, and quite different from all others. In the form of the base of its lip it approaches *S. saccata*, in its markings *S. tigrina*, but it is readily known by its downy, wingless column, the linear middle lobe of its lip, and its bristle-pointed horns. The white flowers with rich crimson spots are quite peculiar.

12. S. *saccata* (Bateman Orch. Mex. & Guat. t. 15.); labello medio paulò constricto, hypochilio scrotiformi anticè omninò aperto subtus gibboso ecarinato, apice et basi mutico intus radiatim glanduloso lamellato, epichilii ovalis trilobi laciniâ intermediâ nanâ, cornubus semi-lanceolatis latis planis incurvis æqualibus, columnâ glâbrâ angustè marginatâ.——*Guatemala*.——This has the smallest flowers in the genus, and almost always has the sepals and petals turned completely back on the ovary. They are greenish-yellow, regularly speckled, but not blotched, with brown, and are deep yellow at their base. The same colour extends to the lip, whose hypochilium is singularly saccate.

There are probably other species even in cultivation; more especially there remain for examination *S. venusta*, which is apparently a variety of S. Wardii, *Harrisoniæ* from Brazil, *aurea* from Guatemala, and *aurantia* from La Guayra, all mentioned in Messrs. Loddiges rich catalogue, but undescribed and unknown to me.

SCHIZANTHUS candĭdus.

White Schizanthus.

DIANDRIA *MONOGYNIA.*

Nat. ord. SCROPHULARIACEÆ.
SCHIZANTHUS. *Supra vol.* 9. *fol.* 725.

S. *candidus;* foliis pinnatifidis, laciniis linearibus undulatis integris, corollæ labio inferiore 3-lobo: laciniis lateralibus setaceis intermediâ bilobâ acutissimâ, labio superiore altè bilobo.

Botanists have raised this pretty genus from one, of which it originally consisted, to four, or, with two now to be added, to six. There also appears a seventh on our books, but that is not distinguishable from S. pinnatus. All of them are probably, and five of them are certainly, in the country. A short enumeration of them will we trust be useful.

The original *S. pinnatus* has interruptedly pinnated leaves, with crenated, pinnatifid, or toothed lobes, varying much in form. The flowers are lilac, with a purple lower lip, whose lateral lobes are at once falcate and spathulate. From this *S. porrigens* was distinguished by Dr. Graham, on account of its diverging flower-stalks, pale lower lip, and perhaps scarcely emarginate upper lip; but as the same parcel of seed produces both, and as they constantly come up intermixed in the seed-beds, they do not appear distinct. Other varieties, especially our *S. pinnatus humilis,* are known.

From this must be separated a Coquimbo plant, found by Bridges, (no. 1355), which, with somewhat smaller but similar flowers to S. pinnatus, has merely pinnatifid leaves, with rounded scarcely toothed lobes. The capsules are nearly twice as large as those of S. pinnatus. We call it *S. pinnatifidus.*

S. Hookeri is something like the two last, but it is more hairy, and very much larger in all respects; the divisions of the pinnate leaves are narrow, and regularly pinnatifid; the lower lip of the corolla consists of very much acuminate bristle-pointed pieces, the lateral of which are setaceous and short; the upper lip is almost cuspidately acuminate; the colour of the flowers is lilac, with a yellow stain on the upper lip.

S. candidus, the plant now figured, has pinnatifid leaves, with linear entire rather wavy segments. The flowers are pure white, without a stain of any other colour; their lower lip has the middle lobe divided into two acuminate flat segments, and the two lateral ones setaceous and shorter. The upper lobe is two-lobed. This was found wild near Coquimbo by Mr. Bridges, whose no. 1356 it is. It is a very pretty half-hardy annual, and well worth cultivation.

S. Grahami, although figured with large flowers, is really a comparatively small-flowered species. Its leaves are something like those of S. candidus, but they are interruptedly pinnatifid, and more incised. The flowers are lilac, with a yellow upper lip, which is lanceolate acute and undivided; the lower lip consists of four acuminate incurved lobes, of which the laterals are short.

Finally, *S. retusus*, the finest of the genus, has deep rose-coloured flowers, with an orange yellow emarginate oblong upper lip, and a lower with four flat acute lobes, the lateral of which are shorter than the others.

The following specific characters state the more important differences among the species.

1. S. *pinnatus* (Fl. Peruv. 1. t. 17. Bot. Mag. t. 2484. Hooker's Bot. Misc. t. 73. S. *porrigeus*, Graham in Bot. Misc. t. 86.); foliis pinnatis laciniis pinnatifidis, corollæ labio inferiore trilobo: lobo intermedio cucullato bilobo lateralibus falcatis spathulatis obtusis, labio superiore retuso v. emarginato.

2. S. *pinnatifidus;* foliis angustis pinnatifidis: laciniis rotundatis nanis integris, corollæ labio inferiore trilobo: lobo intermedio cucullato bilobo lateralibus falcatis spathulatis obtusis, labio superiore bilobo.——Capsula S. pinnati sed duplò major.

3. S. *Hookeri* (Gillies in Bot. Mag. t. 3070); foliis interruptè pinnatis foliolis linearibus serratis, corollæ labio inferiore 4-lobo laciniis intermediis falcatis setaceo-acuminatis lateralibus setaceis, labio superiore cuspidato-acuminato.——Capsula maxima.

4. S. *candidus;* foliis pinnatifidis laciniis linearibus undulatis integris, corollæ labio inferiore 3-lobo laciniis lateralibus setaceis intermediâ bilobâ acutissimâ, labio superiore altè bilobo.

5. S. *Grahami* (Gillies in Bot. Mag. t. 3044); foliis interruptè pinnatis foliolis linearibus v. oblongis serratis, corollæ labio inferiore 4-lobo lobis acuminatis incurvis lateralibus abbreviatis, labio superiore lanceolato.——Capsula minima generis.

6. S. *retusus* (Hooker Bot. Mag. t. 3045); foliis interruptè pinnatis laciniis linearibus obtusè serratis, corollæ labio inferiore 3-lobo, laciniis lateralibus abbreviatis intermediâ acutâ bilobâ, labio superiore oblongo retuso.

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ACACĬA spectabĭlis.

Showy Acacia.

POLYGAMIA *MONŒCIA.*

Nat. ord. Leguminosæ, § Mimoseæ.
ACACIA. Willd.

Series II. Botrycephalæ. *Inermes, foliis bipinnatis, capitulis racemosis, pedunculis solitariis.* Benth.

A. *spectabilis* (Cunningham); glaucescens, glabra v. ramulis petiolisque hirtellis, pinnis 2-5-jugis, glandulâ petiolari depressâ obscurâ jugalibus nullis, foliolis 4-8-jugis obovato-oblongis obtusissimis crassiusculis obscurè 2-3-nerviis, capitulorum racemis folio longioribus supremis paniculatis, floribus subglabris, calyce corolla dimidio breviore. *Bentham in Hooker's London Journal of Botany,* 4. *p.* 383.

Among 340 species of Acacia enumerated by Mr. Bentham this is one of the finest; and it certainly is the very handsomest we have seen from New South Wales, beautiful as many of them are. Unfortunately our means of publication render it impossible to represent the softness and delicacy of surface which are among its principal characteristics. The leaves and branches are covered with the most delicate bloom, and the flowers, produced in large masses at the end of the shoots, are of the clearest and softest yellow.

It is a native of Wellington Valley, and other places on the East coast of New Holland, where it was found by the late Mr. Allan Cunningham and by Mr. Frazer. For its introduction to this country we are indebted to H. B. Lott, Esq. who presented it to Messrs. Lucombe, Pince & Co. of Exeter, from whom we received a flowering specimen last April.

It belongs to the same section of the genus as A. discolor and dealbata, but is probably more decidedly a greenhouse plant than they are, for it comes from the country to the north

of Sidney, and therefore naturally inhabits warmer latitudes. From both it is known by its broad, smooth glaucous leaflets, and by the gland found in these species, in connection with the petiole, being replaced by a depression such as represented at fig. 1.

1
2

ERYTHROCHĬTON Brasiliensis.

Brasilian Red-coat.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Rutaceæ.

ERYTHROCHITON. Nees et Martius. Calyx magnus, coloratus, tubulosus, tubo compresso, quinquecostato, limbi bilabiati lobis æqualibus, integris vel superiore trifido. *Corolla* hypogyna, gamopetala, subhypocraterimorpha, tubo calycem æquante, limbi quinquepartiti laciniis æqualibus, patentibus. *Stamina* 5, omnia fertilia, tubo corollæ breviora et eidem adglutinata, limbi lobis alterna; *filamenta* complanata, subulato-triangularia, basi in tubum brevissimum coalita; *antheræ* introrsæ, biloculares, lanceolatæ, erectæ, muticæ, longitudinaliter dehiscentes. *Ovaria* 5, disco urceolato glanduloso cincta et superata, unilocularia. *Ovula* gemina, saturæ ventrali superposite inserta, superius adscendens, inferius pendulum. *Capsula* pentacocca, coccis bivalvibus, endocarpio cartilagineo, soluto, elastice bilobo, basi membranacea cum seminibus secedente, dispermo vel abortu monospermo. *Semina* reniformia, sinu umbilicata, testa coriacea tuberculato-muricata. Embryo . . . . Arbuscula *brasiliensis ;* foliis *alternis, simplicibus, petiolatis, lanceolatis, longissimis, integerrimis, glabris,* ramulis *axillaribus subaphyllis, floriferis pedunculos longissimos mentientibus ;* floribus *in axilla folii bracteæformis duobus* v. *pluribus fasciculatis, breviter pedunculatis,* pedunculo *basi articulato, bibracteolato,* calycibus *rubris,* corollis *albis.* Endlich. Gen. no. 5992.

Erythrochiton brasiliense. *Nees & Martius in Nov. act. Acad. Cæs. Nat. cur. vol.* 11. *pp.* 150 & 166, *tt.* 18 *c. et* 22.

This fine Brazilian plant is stated by Messrs. Nees and Martius to form a small tree, at the most 10 feet high, with the habit of a Theophrasta, the stem being altogether unbranched, and the long leathery leaves collected at its end. From amongst them rises a long three-cornered flower-stalk, at the end of which are a few large white flowers, conspicuous for their fine red calyxes, from which circumstance the name has been contrived; viz. ερυθρος red, and χιτων a coat.

It is said to inhabit close shady places in the virgin woods of Brazil, preferring a granitic soil; especially near the Presidio of St. John the Baptist, in the province of Mines. For

the opportunity of figuring it we are indebted to the kindness of His Grace the Duke of Northumberland, in whose stove at Sion it flowered last July, for the first time, we believe, in Europe.

It is one of those fragrant trees of the tropics whose foliage is filled with a sweet volatile oil like that of the orange, and whose aromatic tonic bark is valuable as a remedy for the fevers of such countries. The genus is indeed very near Galipea, one of whose species furnishes the Angostura bark of medicine.

A diminished figure shews the habit of the plant; fig. 1. its peculiar cup-like disk and style; fig. 2. the ovary and disk cut through so as to display the ovules. This cup when bruised has a sweet smell like that of a ripe pear.

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G B

SCILLA Peruviana; *var.* discolor.

Dingy-flowered Peruvian Squill.

HEXANDRIA *MONOGYNIA.*

Nat. ord. LILIACEÆ.
SCILLA. L.

S. *peruviana*; foliis lato-lanceolatis patentibus planis margine ciliatis scapo longioribus, racemis confertis conicis, bracteis lanceolatis elongatis nervosis, capsulis mucronatis? *Gussone Fl. Sic.* 1. 415.
S. peruviana. *Linn. sp. pl.* 442. &c.
Var. discolor, *sepalis petalisque flavescenti-brunneis, ovario cæruleo.*
? Ornithogalum siculum floribus cinereo-carneis in rotundam metam fastigiatis. *Bonanni, t.* 19. *ex Gussone.*

That the Peruvian Squill does not grow in Peru is well known, the name having been applied by Linnæus in consequence of some erroneous statements of Clusius or Morison. Neither is it found in India, as one of its old synonyms would lead us to suppose. Its real country is Portugal, about Cintra, according to Brotero; Algiers, where Desfontaines found it in corn-fields; Tripoli, on hill sides, according to Della Cella; Corsica, near S. Bonifacio, where Seraphini found it; clayey hills in Sicily, as we learn from Gussone, and even the sterile hills outside the gate *Degli angioli* of Genoa, as we are assured by Viviani.

The present plant was sent from Algiers to the Hon. and Very Reverend the Dean of Manchester, and therefore agrees in its native country with *S. peruviana.* At first sight, however, it seems so different that it cannot be regarded as the same species. We must, however, confess our inability, after a careful examination, to discover any other distinction between them than that of the colour of the flowers, which are neither white nor bright blue, as in the previously known states of S. peruviana, but a dirty pale fawn-colour. The seed-vessels have exactly the mucronate form ascribed to S. peruviana.

It is in fact apparently the plant quoted from Bonanni as the Sicilian Ornithogalum, with cinereo-carneous flowers, collected into a round head; and not even distinguished by Gussone as a variety.

No doubt as hardy as the Peruvian Squill, and although not so handsome still worth a place in a bulb garden.

del. Pub by J. Ridgway

CIRRHOPETĂLUM chinense.

Chinese Cirrhopetalum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, §. MALAXEÆ.
CIRRHOPETALUM. *Supra* 1838. *t.* 11.

C. *chinense.* Supra 1842. misc. 29.

To what was formerly stated, concerning this singular Chinese plant, in the place above quoted, we have nothing to add, and therefore, instead of repeating those observations, we fill our space with some account of the genus itself and its numerous species.

Cirrhopetalum is a name proposed in the year 1824 for the Bulbophyllum longiflorum of Du Petit Thouars, a Mauritius plant, remarkable for the great length of its lower sepals. In 1825, Professor Reinwardt gave to the same or some nearly allied species the name of Zygoglossum; but of course Cirrhopetalum took precedence on account of its priority of date. In 1830 the genus had increased in number of species to six, of which two had not been examined by me. Now, by the discoveries of Mr. Cuming and others, I am able to bring together twenty-one; of which fourteen have been seen alive, two in a dried state, and five are taken up upon the credit of others. They form a most singular group, and a complete collection of them would be a very interesting feature in a stove. The following is an enumeration of them.

* *Flowers in umbels or racemes.*

1. C. *vaginatum* (L. no. 3. Bot. Reg. 1842. sub t. 12.); pseudobulbis pyramidatis truncatis, folio oblongo convexo emarginato, vaginis scapi oblongis ventricosis distantibus sepalo supremo ovato inferioribusque longissimis pendulis ciliatis, petalis oblongis ciliatis, labello oblongo bicarinato, columnæ auriculis setaceis.——*Sincapore.*——C. vaginatum

differs from C. Medusæ in its flowers being ciliated, the petals oblong, not triangular and acuminate, and in the distant sheaths of the scape; to which may be added that its flowers are not speckled with pink as in C. Medusæ.

2. C. *Medusæ* (Lindl. in Bot. Reg. 1842. t. 12); pseudobulbis ovatis tetragonis, folio oblongo convexo emarginato, vaginis scapi oblongis ventricosis supremo pedunculo longiore, floribus densè capitatis, sepalo supremo acuminato inferioribus longissimis pendulis, petalis triangularibus acuminatis, labello ovato acuminato bicarinato, columnæ auriculis acutis.——*Sincapore.*——This in some respects resembles C. vaginatum, but is a much larger plant, and very different in the form of its flowers.

3. C. *cæspitosum* (Wallich in Bot. Reg. 1838. misc. 53.); pseudobulbis ovatis monophyllis, foliis angustè ovalibus obtusis basi angustatis scapo longioribus, scapo filiformi erecto vaginis paucis membranaceis carinatis acutis distantibus laxè vestito apice umbellato, sepalo supremo obovato fornicato acuto margine scabro lateralibus acuminatis convolutis triplò longioribus, petalis ovatis apiculatis pectinato-serratis, labello minimo solido triquetro apice recurvo angulis superioribus marginatis.——*East Indies.*——Flowers small, pale, yellow ochre-coloured.

4. C. *cornutum* (Lindl. in Bot. Reg. 1838. misc. 138.); pseudobulbis ovatis angulatis scapo paulò brevioribus, sepalis lateralibus in cornu connatis superiore petalisque ovatis ciliatis, labello angusto triangulari suprà sulcato subtùs carinato.——*E. Indies.*——Leaves six or eight inches long. Flowers dull purple.

5. C. *maculosum* (Lindl. in Bot. Reg. 1841. misc. 173.); floribus geminis solitariisque, sepalo supremo oblongo acuto lateralibus lineari-oblongis obtusis margine anteriore pone basin uniplicato, petalis sepalo supremo brevioribus oblongis obtusis, labello ovato obtuso convexo apice recurvo, columnâ bidentatâ? (polliniis 4 subæqualibus).——*East Indies.*——This is a species with the habit of Bolbophyllum affine, or leopardinum, but with the long lateral sepals of a Cirrhopetalum. It has the flower-stalks and flowers of a very pale green, finely speckled with dull purple. The lateral sepals are nearly an inch long, and have a single fold on their inner margin near the base.

6. C. *chinense* (Lindl. in Bot. Reg. 1842. misc. 29. 1843. t. 49.); foliis lanceolatis, umbellâ multiflorâ, sepalo supremo galeato petalisque oblongis brevioribus obtusis serrulatis apiculatis: lateralibus lanceolatis, labello linguiformi obtuso carnoso convexo lævi tremulo.——*China.*——Flowers rather large, pale fawn colour, with dorsal helmet-shaped sepals and petals spotted with crimson.

7. C. *Thouarsii* (L. no. 1. Bot. Reg. 1838. t. 11. *Epidendrum umbellatum*, Forst. *Bulbophyllum longiflorum*, Thouars. *Zygoglossum umbellatum*, Reinw. *Cymbidium umbellatum*, Spreng.); pseudobulbis tetragonis, folio oblongo petiolato, umbella subdimidiatâ, sepalo dorsali setaceo-acuminato lateralibus oblongo-linearibus, petalis ovatis serratis setaceo-acuminatis, labello ovato retuso, columnæ auribus bidentatis.——*Otaheite, Java, Mauritius, Madagascar.*——Flowers pale cinnamon colour, with a little purple dotting about the sepals and petals.

8. C. *Wallichii* (L. no. 5. Bot. Reg. 1839. misc. 119.); foliis lanceolatis apice fissis scapi erecti longitudine, racemo multifloro pendulo, bracteis linearibus acuminatis, sepalis glaberrimis supremo acuminato lateralibus linearibus ligulatis vix acutis, petalis acuminatis subciliatis, labello . . . ——*Nepal.*

9. C. *Roxburghii* (L. no. 2.); foliis lanceolatis, umbellâ radiatâ multiflorâ, petalis ciliatis acutis, sepalis omnibus acuminatis, lateralibus dorsali sexiès longioribus.——*East Indies.*——Leaves three or four inches long. Flowers yellow; the upper sepal and the petals veined with purple.

10. C. *Macræi* (L. no. 6. Bot. Reg. 1841. misc. 105.); folio oblongo petiolato, umbellâ pauciflorâ, petalis oblongis apiculatis falcatis nudis, sepalis acuminatissimis, labello e lata basi angustato carnoso canaliculato obtuso recurvo.——*Ceylon.*——This has the habit of C. *Thouarsii.* It has dull brownish yellow sepals, and purple petals, which are falcate and the point turned forwards.

11. C. *picturatum* (G. Loddiges in Bot. Reg. 1840. misc. 106.); pseudobulbis oblongis angulatis, folio oblongo convexo emarginato, floribus umbellatis, sepalo supremo ciliato setaceo-acuminato lateralibus oblongis obtusis, petalis acuminatissimis ciliatis villosis, labello lineari recurvo secus medium elevato, columnæ auriculis obtusis integris.——*E. Indies.* ——A little plant with purple flowers, growing in flat umbels, and deeply stained with dark red. Its habit is that of a Bolbophyllum, its scape from five to six inches high.

12. C. *auratum* (Lindl. in Bot. Reg. 1840. misc. 107.); pseudobulbis oblongis angulatis, folio oblongo convexo, floribus umbellatis, sepalo supremo petalisque setaceo-acuminatis fulvo-ciliatis lateralibus acutis, labello lineari recurvo, columnæ auriculis rotundatis integris.——*Manilla.* ——Very like the last, but much larger in the flowers, which are fringed with golden yellow hairs, giving them quite a distinct appearance.

13. C. *Cumingii*; pseudobulbis tetragonis, folio oblongo obtuso scapo breviore, umbellâ dimidiatâ multiflorâ, sepalo dorsali petalisque ovatis acuminatis fimbriatis, lateralibus lineari-lanceolatis, labello ovato 3-sulcato pone basin bituberculato.——*Philippines.*——Flowers deep purple, whole-coloured, with long yellow hairs on the petals and back sepal. Flowered in March, 1841, with Messrs. Loddiges.

14. C. *nutans* (Lindl. in Bot. Reg. 1839. misc. 118.); pseudobulbis ovato-subrotundis rugosis, foliis ovato-subrotundis emarginatis coriaceis humi pronis, scapo erecto elongato, umbellâ multiflorâ nutante, bracteis linearibus acuminatis, sepalis glaberrimis: supremo acuminato lateralibus linearibus ligulatis vix acutis, petalis ovatis acutis serrulatis, labello obtuso convexo bicristato, columnæ angulis obsoletè bidentatis.——*Manilla.* ——This has a nodding umbel of pale straw-coloured flowers, at the end of a weak scape about six inches high. The leaves are from an inch and half to two inches long, very thick, emarginate, and lying almost flat upon the ground. The species is near C. Wallichii.

15. C. *fimbriatum* (Lindl. in Bot. Reg. 1839. misc 120.); pseudobulbis ovatis subtetragonis, foliis ovalibus . . . . scapo erecto, bracteis linearí-

bus acuminatis, umbellâ multiflorâ, sepalis lateralibus ligulatis vix acutis cohærentibus supremo petalisque ovatis acuminatis fimbriatis, labello crasso linguiformi nudo obtuso, columnæ angulis cornutis edentulis, antherâ papillosâ.——*Bombay*.——A very pretty species, with the long lower green sepals united into a channelled rather stiff strap, while the upper sepal and the petals are broken up at the margin into beautiful purple fringes.

16. ? C. *elongatum* (*Ephippium elongatum*, Blume Bijdr. p. 309.); "foliis ebulbis oblongo-lanceolatis basi carinatis, floribus in pedunculo elongato superne dense spicatis, sepalis acuminatis."——*Java*.

17. ? C. *capitatum* (*Ephippium capitatum*, Blume Bijdr. p. 309.); "bulbis oblongis compressiusculis, foliis oblongo-lanceolatis, floribus capitatis, sepalis elongatis acuminatis, margine revolutis."——*Java*.

** *Flowers solitary*.

18. C. *antenniferum* (Lindl. in Bot. Reg. 1843. sub t. 49.); folio . . . ., scapo unifloro, sepalo dorsali lineari-lanceolato abruptè acuto lateralibus cohærentibus canaliculatis falcatis haud multùm longioribus, petalis in setam tenuissimam apice clavatam productis.——*Philippines*, (Cuming).——The flower is the largest in the genus, the back sepal measuring an inch and half in length. I have only seen a single flower.

19. C. *maxillare* (Lindl. in Bot. Reg. 1843. sub t. 49.); folio oblongo scapi uniflori longitudine, sepalo dorsali setaceo-acuminato ciliato lateralibus obtusè acuminatis disjunctis, petalis acutissimis.——*Philippines*, (Cuming).——Upper sepal 9 lines, lateral 17 lines long. Petals about 1½ line.

20. C. *Blumii* (L. no. 4. *Ephippium ciliatum*, Blume Bijdr. 209. tab. 65.); folio lineari-lanceolato, scapo unifloro, petalis pubescentibus acutis, sepalis omnibus acuminatis, dorsali canaliculato infernè ciliolato, labello orbiculato longissimè cuspidato, columnâ bicorni.——*Java*.

21. ? C. *compressum* (*Ephippium uniflorum*, Blume Bijdr. p. 309.); "bulbis oblongis compressis, foliis lato-lanceolatis, pedunculo unifloro, sepalis ovatis acuminatis."——*Java*.——Probably of this genus, since it is associated by Blume with his Ephippium ciliatum.

vake del. Pub. by J. Ridgway. 169 Pi J. Barclay sc

CANDOLLEA tetrandra.

Tetrandrous Candollea.

MONADELPHIA *TETRANDRIA.*

Nat. ord. DILLENIACEÆ.

CANDOLLEA, Labillard. *Calyx* pentaphyllus, foliolis ovalibus, mucronatis, persistentibus. *Corollæ* petala 5, hypogyna, obovata v. obcordata. *Stamina* hypogyna, polyadelpha; *filamenta* brevia, filiformia, basibus fasciculatim connata, apicibus distincta; *antheræ* biloculares, loculis oblongis, adnatis. *Ovaria* 3-6, libera, unilocularia, ovulis 2, e basi erectis. *Styli* terminales, subulati; stigmata simplicia. *Capsulæ* coriaceæ, uniloculares, intus longitudinaliter dehiscentes, mono-dispermæ. *Semina* erecta, arillo membranaceo, lacero.——Suffrutices *Novæ-Hollandiæ Austro-occidentalis; foliis alternis, ad apices ramulorum subconfertis, linearibus v. cuneatis, integerrimis v. apice dentatis, sæpius supra basim persistentem transversim secedentibus,* floribus *ad apices ramorum solitariis v. fasciculatim racemosis.* Endl. Genera, 4755.

C. *tetrandra;* ramis junioribus pilosis, foliis oblongis cuneatis dentatis basi angustatis integerrimis, floribus solitariis inter folia sessilibus, petalis obovatis planis emarginatis sepalis mucronatis glabris multò longioribus, phalangibus tetrandris. *Lindl. in Bot. Reg.* 1842. *misc.* 39.

The plant which is called *Candollea cuneiformis* in gardens is a species with leaves and flowers not half the size of the subject of the present plate, and stamens placed from six to nine in a parcel; otherwise it has much the same appearance. This species is manifestly quite distinct. The former comes, or is said to come, from King George's Sound; this has been raised from Swan River seeds. In country therefore they are not very different.

Relying upon the traditionary application of the name *C. cuneiformis,* I separated the present plant under the name of *C. tetrandra,* in a notice published in this work in June, 1842. But upon looking into prior authorities I begin to doubt whether this or the small one has the best claim to the former name. DeCandolle says nothing about the number of stamens in the phalanges of *C. cuneiformis;* but Sir W. Hooker, in his figure in the Botanical Magazine, t. 2711, of what purports to be

that species, represents it with only four stamens; although the figure itself is very characteristic of the small kind, with from six to nine stamens, and not at all of this which has but four. No doubt indeed can be well entertained about the figure being generally intended for the *C. cuneiformis* of the gardens, as seems proved by the shortness of its petals; and it may therefore be presumed that some mistake has been made about the number of the stamens; for the figure in question was not made by Sir W. Hooker himself, but by some unknown artist employed by Mr. Aiton. Upon the whole then no reason seems to exist why this should be considered otherwise than a new species.

It is remarkable for the large size and orange colour of the aril of its seeds, as represented in the analysis in the accompanying plate. In a small way this organ is like that of the nutmeg, and will represent the nature of the mace in that spice.

This is a greenhouse plant, and will grow freely in almost any sort of soil, but it appears to thrive best in a compost consisting of peat, loam and sand, in equal proportions. It will bloom freely in a pot, but where that can be accomplished it will do much better planted out in a bed. Whether potted or planted out, the neck of the plant (that portion of the stem immediately above the soil) should be a little elevated, otherwise it is liable to suffer from damp in winter. Water should be liberally given during the summer months, and plenty of air at all times when the weather permits, applying no fire heat except to keep off frost. It is easily propagated by cuttings under ordinary treatment.

Ridgwa: 169. Piccadilly Oct 1. 1843

ELÆAGNUS parvifolia.

Small-leaved Oleaster.

TETRANDRIA *MONOGYNIA.*

Nat. ord. ELÆAGNACEÆ.

ELÆAGNUS. *Supra vol.* 14. *fol.* 1156.

E. *parvifolia;* foliis oblongis petiolatis supra viridibus adultis lævibus infra cinereo-lepidotis, floribus in axillis ramulorum brevium subsolitariis petiolis longioribus aut foliorum abortu corymbosis, calyce angusto infundibulari laciniis acutis.

E. parvifolia, *Wall. Cat. herb. ind. no.* 4026. *Royle Illustrations, p.* 323. *t.* 81. *fig.* 1.

Frutex adultus floribus onustus foliis fere deficientibus, et tum flores dense corymbosi; junior magis foliosus, floribus solitariis axillaribus. Facies cinerea, siccatione canescens. In spontaneis pagina foliorum superior præsertim juniorum pilis stellatis cinerea qui cultis deficiunt. Flores albi; odor suavissimus.

Making allowance for the effects of climate, we may identify this plant with the *Elæagnus parvifolia* of Wallich and Royle, a shrub from the north of India, of which abundant specimens were distributed by the former Botanist. They are more grey indeed, and their silvery scales are more abundant, but this is a mere difference in degree. Indeed the Sirmore specimens, from the collections of Webb and Gerard, are as green as our own. The Kamaon specimens are more loaded with flowers, which appear moreover in short dense corymbs, and not singly in the axils of short lateral branches; but this seems owing to nothing more than the abortion of the leaves on their branches, possibly by reason of the crowds of flowers that appear in old specimens.

It is probably the same as the *Elæagnus reflexa* of the Continent, a name for which we find no warrant. The flowers, although small and whitish, and therefore inconspicuous, are deliciously sweet.

GARDEN.

Fig. 1. represents one of the stellate hairs on the upper surface of the leaves.

It is a hardy evergreen shrub or small tree, succeeding well in any good loamy soil. It flowers freely in June and July, and is only increased by seeds or by suckers, which are sometimes produced when the plants become old. It was raised in the garden of the Horticultural Society from seeds received from Dr. Royle.

* TETRANEMA mexicanum.

Mexican Tetranema.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. Scrophulariaceæ, § Digitaleæ, *Bentham.*

TETRANEMA. *Calyx* 5-partitus, sepalis angustis acutis æstivatione imbricatis. *Corollæ* distinctè bilabiatæ, labio superiore brevi plano emarginato, lobis latis patentibus; inferiore longiore, patente, trifido. *Stamina* 4, basi declinata, dein adscendentia, corolla breviora. *Antherarum* loculi divaricati. *Stylus* simplex; *stigmate* subcapitato. *Capsula* loculicido-bivalvis; valvulis integris, medio septiferis à placenta demùm libera secedentibus. *Semina* numerosa angulata. *Bentham in litt.*

Tetranema mexicanum. *Bentham in litteris.*
Pentstemon mexicanus. *Hort.*

I have not succeeded in ascertaining where the name Pentstemon mexicanus, under which this species is known in gardens, has been published. It has possibly originated in Belgium, whence the plant seems to have been introduced, as is said, from Mexico. In a wild state it is unknown to me.

Mr. Bentham, who has given particular attention to this order of plants, is of opinion that this is certainly a new genus, very near Pentstemon, with the same calyx and corolla, but without any trace (or very little) of the sterile stamen so conspicuous in Pentstemon. It also differs, he says, from Capraria and Russelia, in its decidedly two-lipped corolla, and is farther removed from other genera in many points.

The accompanying figure was made from a plant in the possession of Mr. Mountjoy, Nurseryman, Ealing.

It is a very pretty greenhouse plant, quite peculiar in its appearance, in consequence of its almost stemless habit and

* From τετρα, four, νημα, a filament, on account of there being but four filaments in this genus, while the neighbouring genus Pentstemon has five.

the profusion of little corymbs of showy purple and white flowers which rise up from among the leaves on long purple scapes.

It is a tender greenhouse plant. It should be top-dressed in autumn and kept rather dry, in an intermediate house between a stove and greenhouse, during winter. In spring it should be re-potted in light free soil, chiefly leaf mould and sandy loam, and placed in a greenhouse, where it will remain in bloom the greater part of the summer. It may be propagated from seeds or cuttings, in the usual way.

55

Miss Drake   Pub. by J. Ridgway 169 Piccadilly. Oct 1. 1843.   J. Ba

VISCARIA oculāta.

Dark-eyed Viscaria.

DECANDRIA *PENTAGYNIA.*

Nat. ord. Silenaceæ. (Caryophylleæ).

VISCARIA, Röhl. *Calyx* ebracteolatus, oblongus, clavatus v. turbinato-campanulatus, teres v. quinquedentatus. *Corollæ* petala 5, carpophori brevis v. elongati apici hypogynè inserta, unguibus linearibus, laminis bifidis, excisis v. subintegris, basi nudis. *Stamina* 10, cum petalis inserta; *filamenta* filiformia; *antheræ* biloculares, longitudinaliter dehiscentes. *Ovarium* basi quinque-rarissime triquadriloculare, septis circa medium 5, apicem columellæ centralis sensim deliquescentibus superne uniloculare. *Ovula* plurima, columellæ centrali cum septis connatæ v. supernè liberæ funiculis distinctis inserta, amphitropa. *Styli* 5, rarissime 3 v. 4, filiformes, intus stigmatosi. *Capsula* basi quinque, rarius tri-quadrilocularis, apice inter stylos simplici eorundem numero in dentes dehiscens. *Semina* plurima, minuta, reniformia, granulata v. tuberculata. *Embryo* annularis, albumen farinaceum cingens; *cotyledonibus* incumbentibus. Herbæ *Europeæ et arcticæ amphigeæ, annuæ v. perennes, erectæ;* foliis *oppositis, linearibus v. lanceolatis;* floribus *in dichotomiis ramorum alaribus v. in cymulas thyrsoideo v. subumbellatim confertas congestis, roseis v. purpureis.* Endl. Genera, 5249.

§. Eudianthe, *Rchb.* Calycis fructiferi tubus angulatus, transversim rugosus, laciniæ elongatæ.

V. *oculata;* calycis tubo abruptè constricto, petalorum appendicibus brevibus emarginatis, capsulâ granulatâ ovatâ.

Lychnis oculata. *Jas. Backhouse in litt.*

This plant is so like the old hardy annual called Agrostemma Cœli rosa, that for some time we regarded it as a mere variety. But upon a more minute examination we find marks of difference that seem to belong to a species. In the first place it has a dark eye, which the old kind has not. Then its petals have a short and slightly emarginate appendage, and not a long bifid one. In the form of the calyx there is this difference, that in the plant before us it contracts suddenly about the middle, while in Cœli rosa it narrows very gradually. Furthermore, the surface of the seed-vessel here is rough with fine granulations, but in Cœli rosa is smooth. It

therefore seems that the latter may be distinguished by the following comparative specific character :—

V. *Cœli Rosa;* calycis tubo sensim angustato, petalorum appendicibus elongatis bipartitis, capsulâ oblongâ lævi.

This, like the Cœli rosa, is a hardy annual; it was gathered by Mr. Giles Munby on dry hills, thirty miles from Algiers, and given by him to Messrs. Backhouse, Nurserymen, York, to whom our specimens are owing.

The genus Viscaria of Röhling, adopted by Endlicher, Fenzl and Walpers, is distinguished from Silene by having five styles, and from Lychnis by its ovary being imperfectly 5-celled. It includes the Agrostemma Cœli Rosa of Linnæus, and the Lychnides viscaria, alpina, læta and corsica of authors. The first of these plants constitutes the sub-genus Eudianthe, distinguished by its corrugated angular calyx.

This pretty annual may be sown in any good rich garden soil, in the open border, about the end of March, in the usual way. Afterwards the plants should be thinned so as to stand singly, in which state they flower longer and produce much larger and finer blossoms. It may also be sown in the autumn, remain in pots in a cold frame through the winter, and be planted out about April. It flowers a great part of the summer and autumn.

1

DENDROBIUM aqueum.

Watery Dendrobium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § MALAXEÆ.
DENDROBIUM. *Swz.*

Sect. EUDENDROBIUM; *foliis planis, floribus gemellis, labello trilobo.*

D. *aqueum;* foliis ovato-oblongis undulatis acuminatis, floribus patulis cornu brevi obtuso, sepalis petalisque ovatis, labelli trilobi pubescentis laciniâ mediâ ovatâ denticulatâ basi altè excavatâ lateralibus latioribus rotundatis margine anteriore serrulato. *Lindl. in Bot. Reg.* 1843. *misc.* 6.

Among the crowd of Indian species belonging to this large genus, or group of genera, the plant now figured seems to be hitherto unknown to the Botanists of India. With the manner of growth of *D. Pierardi*, its pale watery green flowers are quite destitute of the attractive colours of that gay species, and are entirely different in the structure of the lip, which is furnished with a large cavity, almost a pouch, at the base of the middle lobe, as is shewn at fig. 1. in the plate. It is also a much stouter plant, with wavy leaves.

The figure was made in November, 1842, in the nursery of Messrs. Loddiges, who imported it from Bombay.

This species may be grown in the same way as many other Dendrobiums, potted in rough turfy peat, well mixed with pieces of broken pots. For drainage, the pot should be nearly half filled with potsherds, and the soil elevated one fourth the height of the pot above its brim. Being thus potted, too much water can scarcely be given during the growing season. The house should be slightly shaded in sunny weather, taking care to keep the temperature as near 80° by day as possible, and about 68° by night. In autumn, as the young shoots be-

come matured, water should gradually be withheld, so that in winter the plant may only receive it in fine weather. The temperature may then be allowed to fall as low as 50° or 55°.

15

ACHIMENES hirsuta.

Hairy Achimenes.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. GESNERACEÆ.
ACHIMENES. Botanical Register, 1842. *fol.* 19.

A. *hirsuta;* caulibus hirsutis paniculatis bulbilliferis, foliis cordatis serratis hirsutis, pedunculis solitariis foliis æqualibus, corollæ limbo plano laciniis rotundatis serrulatis. *Lindl. in Bot. Reg.* 1843. *misc.* 103.

This pretty plant forms another acceptable addition to the charming genus Achimenes, and will probably become almost as great a favourite as any of the species. In habit it bears the nearest resemblance to A. pedunculata, and like that beautiful thing is disposed to bear little bulbs in the axils of its leaves and branches.

The history of its introduction is an instructive lesson to importers of plants. How often do we find gardeners throwing away the moss, and mould, and fragments that remain after every foreign case of plants is examined, and the principal part of the contents removed; and how often perhaps do they thus reject the most interesting species, for if accident is the fertile mother of new inventions, so is she also of new introductions. Canna iridiflora was obtained from seeds accidentally found in an old herbarium; several Orchidaceous plants have been picked off dried specimens; and this Achimenes adds another to the list. It was hidden among a mass of Orchidaceous plants imported from Guatemala, and sold by auction a few months ago; Mr. Henderson, of the Pine Apple Place Nursery, accidentally detected it; and thus a plant, which must have been often sent home with fruitless care on former occasions, was brought to our gardens without any attention whatever.

November, 1843.

As has been already stated, this species has the habit of A. pedunculata, but is nevertheless a very different species. The leaves are covered with coarse hairs; the flowers are much larger, not at all striped, but have a deep rose-coloured border whose lobes are notched.

Those who are fond of hybridizing have been attempting to obtain crosses between A. longiflora and some of the red species, but the result has been, we understand, a dingy purple, as was to be expected. We would suggest that this would mix readily with A. pedunculata, and that the result would be the improvement of the size of the latter, and of the colour of this, whose rose is hardly bright enough to satisfy the eye fastidious in colour.

It should be potted in a compost, consisting of peat, loam, and sand in equal proportions. In autumn, after flowering, the plant will naturally die down, but tubers will be formed at its roots, which may be kept in the soil during winter in the same manner as bulbs are kept, taking care to protect them from frost. In spring, as soon as they commence growing, they should be potted. Three tubers in a pot will produce a large plant. Although a stove plant, it requires plenty of air when the weather will allow, with an ample supply of water to its roots, but very little overhead, otherwise, instead of flowers, small scaly tubers will be formed in the axils of the leaves.

Miss Drake del. Pub by J. Ridgway. 169 Piccadilly. No.

MORMŌDES aromaticum.

Aromatic Mormodes.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ—CATASETIDÆ.
MORMODES. Botanical Register, vol. 22. *fol.* 1861.

M. *aromaticum;* racemo brevi erecto, sepalis petalisque subrotundo-ovatis acutis secundis concavis, labello angustè cuneato convexo laciniâ intermediâ triangulari acuminatâ cucullatâ. *Lindl. in Bot. Reg.* 1841. *misc.* 162.

We have so recently (t. 33.) made some general observations upon the genus Mormodes, that we have nothing further to do on the present occasion than to give a figure of this plant, and to point out in what respect it differs from M. pardinum, the only species to which it approaches closely.

In habit the two are similar, but *M. aromaticum* is the smaller, and has shorter leaves. The spike of *M. pardinum* is much longer and bears three times as many flowers; the sepals and petals are narrower, and more taper-pointed: their difference in colour is obvious; the labellum of *M. pardinum* has the same form as the sepals, except that it has three sharp-pointed lobes, and a kind of stalk, which *M. aromaticum* wants.

This species, although only introduced a few years since from Mexico, is now common, and although of little beauty, is valued for the peculiar fragrance, which is like that of aromatic vinegar.

Fig. 1. represents the labellum.

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ELEUTHERÎNE anomăla.

Anomalous Eleutherine.

MONADELPHIA *TRIANDRIA.*

Nat. ord. IRIDACEÆ.

ELEUTHERINE. Herbert. Cormus acutè ovalis tunicatus; folia plicata; perianthium fugax regulare; filamenta libera tenuia; stylus superne trifidus; capsula trilocularis superne dehiscens chartaceus; semina rugosa subrotunda. Gelasini et Nemostyli affinis. Eleutherine & Nemostylis Gelasinis forsitan sectiones ?—W. H.

E. *anomala (Herbert in litt.)*; foliis oblongis basi angustatis superioris petiolatis floribus laxè pedunculatis longioribus, floribus hexandris.

This singular little plant appeared in a flower-pot in the garden of the Horticultural Society in April last, but its origin is unknown. Its similarity to the West Indian Marica plicata renders it probable that it had been imported from that part of the world. From Marica plicata it differs in its dwarfishness, in the leaves tapering very evidently to the base, while the uppermost have long channelled stalks, and are much longer than the flowers.

The great peculiarity, however, consists in the flowers having six stamens instead of three, a circumstance previously, we believe, unobserved in the Iridaceous order. Whether, however, this was an accidental circumstance in the plant now figured, or is peculiar to the species, is uncertain. The increase in number of stamens is of the same nature as their redundancy in Vellozia and Gethyllis.

If the views of previous Botanists, as to the genus in which this should be included, are consulted, we shall find one placing its nearest ally in Sisyrinchium (Swartz), another in Moræa (Swartz), and a third in Marica (Ker); a pretty good indication of its really belonging to none of them. The regular flowers, free stamens, trifid slender-lobed style, ovate corms, and plaited leaves are so peculiar as to have led the Dean of Manchester to distinguish it under the name of Eleutherine, a view we do not hesitate to adopt. It is indeed inconceivable how it could ever have been referred to either Moræa or Marica; its relation to Sisyrinchium is more obvious; the separate stamens, however, distinguish it. The real affinity of the genus is, in Dr. Herbert's opinion, with Gelasine.

The following memorandum on the subject has reached us from that gentleman since the above was in type:—

"The genus Eleutherine was founded in MS. notes for an arrangement of the confused mass of plants heaped together under the name Sisyrinchium, which cannot be well completed, from the difficulty of investigating the minute structure of such fugacious flowers in dry specimens, and the equal difficulty of obtaining and cultivating several of them. The type of the genus Eleutherine is the plant figured in the Bot. Mag. under the name Marica plicata, and named in Sweet's Hort. Brit. Sisyrinchium latifolium. It has very little affinity indeed to Marica, of which the character and species were, not long ago, detailed in the Bot. Mag., and it is very different from Sisyrinchium. Its affinities are to Gelasine, Nemostylis, and Cipura, and it may be, that Nemostylis and Eleutherine will be found to range under Gelasine as sections. The prevailing colour of Gelasine and Nemostylis is blue or purple, of Eleutherine white. Prof. Endlicher, whose view of the genera of plants is valuable, because he has dealt with the greater part of his subject with more knowledge and discrimination than he has applied to Iridaceæ and Amaryllidaceæ, has thrown the genus Gelasine into Trichonema, and he would probably refer this plant to the same genus. He might as well refer it to Crocus, with which Trichonema is much more closely allied than with these plants. Trichonema in all its various species may be at once recognized in the dry bulb or the fruit, and may be called the lowland Crocus, extending N. and S. from Guernsey and Jersey (of which the native species has been set down for a Crocus by R. & Sch.) to the Cape, E. and W. from Socotra to the Spanish peninsula. When he shall have marched a few more Sisyrinchioid detachments into the same depôt, he will find very little subordination in the corps. In arranging the hexandrous plants it was the duty of a person undertaking such a work to have examined the volume "Amaryllidaceæ," which he must have known from the works he quotes to have been some time published, and he would there have found the affinities of the various groups set forth upon a basis at least of tolerable correctness, and would not have presented such an imbroglio of that order to the public. It is open to a person, who is fond of generalizing, to set forth the Cyrtanthiform, Hippeastriform, and Amarylliform divisions of the order as genera, Cyrtanthus, Hippeastrum, and Amaryllis, and to place Vallota, &c. Sprekelia, &c. Crinum, &c. as sections of them respectively, but ignorance of the subject alone could induce a person to preserve the subordinate Vallota, Cooperia, and Griffinia, as distinct genera, and pour back the rest into the cauldron of Amaryllidean confusion."—W. H.

Drake del. G. Barclay sc.

ALSTRŒMERIA lineatiflora.

Lined Alstrœmeria.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDACEÆ.

ALSTRŒMERIA. *Botanical Register, vol.* 1839. *fol.* 13.

A. *lineatiflora;* foliis oblongis obtusis basi angustatis superioribus verticillatis, corymbi pedunculis subtrifloris, sepalis obovato-cuneiformibus cuspidatis, petalis angustioribus lanceolatis basi canaliculatis.

A. lineatiflora, *Fl. Peruv.* 3. 60. *t.* 289. *Römer & Schultes Syst. veg.* 10. 739.

A. Ligtu, var. 2. *Herbert Amaryll. p.* 92.

At last we have the pleasure of publishing the true *Alstrœmeria lineatiflora,* from Peruvian roots presented to the Horticultural Society by John Maclean, Esq. of Lima. It is one of the finest of its class, and although, doubtless, very near *A. Ligtu, peregrina,* and *pulcra,* apparently distinct from either.

In addition to the discriminating marks between these beautiful species, pointed out by the learned investigator of the genus, (*Herbert Amaryllid. p.* 93,) it will be found that *A. pulcra* has the sepals and petals constantly serrated, which is never the case in the other three, and that the form of their leaves or sepals affords clear marks for further discrimination. In *A. lineatiflora* the leaves are short, very blunt, and of nearly equal size; in *A. peregrina* they are also of nearly equal size, but very sharp; and in *Ligtu* the upper are very narrow and taper-pointed. Then, as to the sepals; in *A. peregrina* they are deeply obcordate, in *pulcra* narrow, spatulate, obovate with a little point, in *Ligtu* roundish obovate with a very small point, and in *lineatiflora* obovately wedge-shaped with a large point. By these marks it appears that these species may be certainly distinguished; and that being

so, we are constrained to regard *A. lineatiflora* as a good species, and not a mere variety of *Ligtu.*

It is necessary to add, that the *A. Ligtu* here spoken of is that figured at t. 13 of our volume for 1830, and not the A. Ligtu of the English gardens, which is *A. caryophyllæa.* We are aware that some doubt exists as to whether the A. Ligtu of Feuillée, with pink flowers obliquely banded with white, is the same plant; but his figure is so bad that it may represent any of the neighbouring species, and nothing more like it than our *Ligtu* has, that we know of, been brought from Conception, which so many botanical travellers have visited of late years. Feuillée says nothing about the form of the sepals, and his artist is evidently no authority, for he has missed the deeply obcordate form of even *A. peregrina.*

It is a greenhouse perennial; and thrives best in a compost, consisting of one-half loam, the other peat and sand. This, like many other species of Alstrœmeria, produces tuberous roots in a horizontal direction, consequently it requires a large pot, which should be nearly half filled with potsherds. In autumn the plant should be set in some airy place, where it will receive very little water, until the beginning of January, when it should be repotted. While in a growing state, plenty of water should be given, and air at all times when the weather will permit. It may be propagated abundantly from seed.

DUVAUA longifolia.

Long-leaved Duvaua.

POLYGAMIA *MONŒCIA.*

Nat. ord. ANACARDIACEÆ.
DUVAUA. *Supra, vol.* 19. *fol.* 1568.

D. *longifolia;* foliis lineari-oblongis basi angustatis integerrimis, corymbis sessilibus axillaribus, floribus 7-8-andris.

The Duvauas are a race of evergreen shrubs, smelling of turpentine, with small green flowers, a caustic juice, and considerable affinity to Rhus. We have now in our gardens the following species, viz. *D. dependens, ovata, latifolia,* this *longifolia,* and another or two undescribed and insufficiently examined. They all inhabit the southern temperate regions of South America, and are capable of living with us in the open air through ordinary winters, especially if placed in a north-western exposure.

The species now figured differs from *D. dependens* in its leaves not being at all serrated, and decidedly narrowed, not widened, to the base; and also in having very short corymbs of flowers. With the others it is not necessary to compare it.

It is much hardier than any of the others, having stood against an exposed wall in the hard winter, 1837-8, when all the others were either killed down to the ground or entirely destroyed.

It grows freely in any good garden soil; flowers in June or July; and is increased by seeds, or by cuttings of the half-ripe wood taken off about August, and treated in the ordinary way.

The plant from which our figure was taken was presented to the Horticultural Society some years ago by Mr. H. Low of Clapton, who raised it from seeds received from Buenos Ayres.

2
1

DENDROBIUM Ruckeri.

Mr. Rucker's Dendrobium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § MALAXEÆ—DENDROBIDÆ.
DENDROBIUM. *Supra, vol.* 15. *fol.* 1291.

Sect. EUDENDROBIUM. *Caule tereti, foliis planis, floribus gemellis, labello trilobo.*

D. *Ruckeri* (Lindl. in Bot. Reg. 1843. misc. 38.); caulibus teretibus, foliis ovato-lanceolatis acuminatis planis, floribus gemellis, sepalis patulis obtusiusculis convexis margine reflexis lateralibus subtriangularibus, labelli trilobi lobis rotundatis intermedio undulato axi elevatâ villosâ.

We presume this plant to be one of Mr. Cuming's discoveries in the Philippines, although no trace of it is to be found among his dried specimens.

It belongs to the same set as *D. Pierardi*, among which it is one of those with yellow flowers, the others being *D. sanguinolentum*, *chrysanthum*, *Cambridgeanum*, *rugosum*, *salaccense*, *Paxtoni*, and *aureum*. Although it may not be quite so handsome as some of these, yet it is a very fine species, and perfectly distinct, both in colour, habit, and the structure of the flowers.

Its leaves are exactly lanceolate, very sharp-pointed, and a little disposed to curve backward at the end. The flowers, although of a rich yellow nankin colour when expanded, are almost white externally; their lower sepals, which are really ovate in form, are rolled back at the edge, near the middle, so as to look as if contracted there. The petals and upper sepal are nearly of the same size and form, linearly obovate, acute and spreading. The labellum is deep orange, with a white edge and a pale pink outside; when spread flat it is roundish obovate, with three rounded lobes, of which the

middle one is crisp, and has a hairy ridge running along its middle; the side lobes are hairy too near the base. The flowers are deliciously sweet.

We owe the opportunity of figuring it to Sigismond Rucker, Esq. Jun., with whom it flowered in February last.

Fig. 1. represents a front view of the column and base of the labellum ; 2. shews the latter spread open.

It should be potted in rough turfy peat, mixed with potsherds ; the pot to be half filled with broken pots, and the soil considerably elevated above its brim, in order that the roots may sustain no injury from stagnant water. In summer, while the plant is growing, plenty of water should be given to its roots, and it may be slightly syringed once or twice a day. The house at this time should be shaded in sunny weather, and kept as moist as possible, taking care not to let the temperature rise above 80° by day, nor above 70° at night. In autumn water should be very much withheld, so that the plant may gradually receive its state of rest. In winter the temperature should never be raised above 58° with fire heat.

Miss Drake del. Pub. by J. Ridgway 169 Piccadilly. Dec.r 1. 1843. J. Barlow sc.

CIRRHOPETĂLUM auratum.

Gold-edged Cirrhopetalum.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ, § Malaxeæ.
CIRRHOPETALUM. Supra 1838. *t.* 11.

C. *auratum;* pseudobulbis ovatis sulcatis, folio oblongo convexo, floribus umbellatis, sepalo supremo petalisque setaceo-acuminatis fulvo-ciliatis lateralibus acutis, labello lineari recurvo, columnæ auriculis rotundatis integris. *Lindl. in Bot. Reg.* 1840. *misc.* 107.—1843. *sub t.* 49.

Among the singular species of this genus the present is one of the most interesting. It hangs down from the branch of a tree, or a piece of charred wood, which it soon overruns with its delicate green roots and egg-shaped furrowed pseudobulbs.

The leaves are very thick, deep green above, and convex; stained with purple beneath. The flower-stem is as slender as a small thread, and too weak to bear the umbels of flowers, which therefore hang down gracefully, and are balanced in the air.

The umbels, as in many others of this genus, are so arranged that the flowers are all on one plane, and diverging equally from the centre form a circle, whose interior is occupied by the lower part of the flowers, and whose circumference is formed by the long flat strap-shaped lateral sepals, which look like so many party-coloured ribbons collected into a balloon.

The flowers themselves have a yellowish ground, striped and mottled with crimson. The upper sepal and two petals, badly drawn in the figure, are fringed with golden hairs, and tapered into a fine point. The lateral sepals are quite destitute of hairiness, and only faintly stained with purple.

It differs from C. picturatum in its party-coloured, not purple, flowers; in its petals being far less taper-pointed, and

not villous; and in the lip not having a central ridge, which is conspicuous in C. picturatum.

A native of Manilla, whence it was received by Messrs. Loddiges, with whom our drawing was made in March 1841.

Fig. 1. represents a flower much magnified, with the long lateral sepals cut off; the petals are by no means well figured; they, as well as the upper sepal, taper into a fine bristle-like point. Fig. 2. is the labellum.

It may be potted in turfy heath-mould, mixed with pieces of small potsherds; or it may be suspended on a block of wood, with a little sphagnum about its roots to retain moisture. Like many species of Pleurothallis, Stelis, &c. this requires a humid atmosphere in winter as well as in summer; but it should always be remembered, that the more light and heat, the more water is required. During the warm summer months, when the temperature of the house (although shaded) can scarcely be kept below 80°, the water required will be twice as much as is necessary in winter, when the temperature should never be raised above 50° or 55° by artificial means.

62

RHODODENDRON Aprilis.

Garden Variety.

A beautiful hybrid, raised by the Hon. and Very Rev. the Dean of Manchester from seed of Rhododendron ponticum, fertilized by the Evergreen Davurian Rhododendron. It flowers in April, for which reason Mr. Herbert has given it the name of Aprilis.

The figure sufficiently indicates its beauty; yet the plant is really handsomer, for the colours when fresh are considerably brighter in the pink part. The specimen was in fact fading when the drawing was made.

Of course a hardy shrub: but we believe not at present in the hands of "the trade."

del. Pub. by J. Ridgway. 169 Piccadilly. Decr. 1. 1843

BOSSIÆA paucifŏliă.

Few-leaved Bossiæa.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ.

BOSSIÆA. Botanical Register, vol. 1841. *fol.* 55.

B. *paucifolia;* glabra, inermis, ramis compressis alatis, foliis paucis obovatis oblongis linearibusve, pedicellis folio brevioribus, legumine glabro latitudine pluries longiore. *Bentham in Bot. Reg.* 1841. *misc.* 108. *Walpers Repertorium, vol.* 1. 578.

B. virgata, *Hooker in Bot. Mag.* 1842. *t.* 3986.

This New Holland bush, which has been raised several times from Swan River seeds, is one of those plants whose appearance depends chiefly upon the way in which it is managed. Under ordinary circumstances it is a straggling, naked, inelegant species; but when kept dwarf, and in very good health, it forms a pretty compact bush, gaily sprinkled with yellow and crimson blossoms.

It was originally raised from seeds by Robert Mangles, Esq. of Sunning Hill; and in July, 1841, it was named and defined in this work by Mr. Bentham. Afterwards, in December, 1842, it was figured in the Botanical Magazine under the name of B. virgata, Sir William Hooker not being aware that it had been already published.

Our drawing was made from a plant in the possession of Messrs. Lowe and Co. of Clapton, in April last.

Fig. 1. represents the calyx; 2. the ovary, cut in half, to shew the ovules.

It is a greenhouse shrub, and will best succeed if potted in rough peat mixed with a little loam and sand. When potted, the stem should never be immersed in the soil, but rather a little elevated, which will preserve the plant from damping off

in winter. In summer an ample supply of water should be given, and air at all times. In winter it should be exposed as much as possible to the light, and always receive air when the weather will permit. Fire heat should never be applied, except to keep off frost. It may be propagated from seeds or cuttings.

HIBBERTIA perfoliāta.

Thorough-wax Hibbertia.

POLYANDRIA *DI-PENTAGYNIA.*

Nat. ord. DILLENIACEÆ.
HIBBERTIA. *Botanical Register, vol.* 4. *fol.* 282.

H. *perfoliata;* glaberrima, glaucescens, ramis subteretibus, foliis obovato-oblongis oblongisque amplexicaulibus et perfoliatis denticulatis apiculatis subtùs lævibus opacis, pedunculis solitariis foliis subæqualibus unifloris basi squamatis, petalis bilobis calyce triplò longioribus, ovariis 4-5 glabris.
H. perfoliata, *Hugel Enumeratio, p.* 6.

This is really a beautiful Swan River shrub, particularly well adapted to pot culture, on account of the neatness of its appearance at all seasons. According to Baron Hugel it has a tendency to climb, but that has not been observed in our gardens.

When it first flowered it was of one uniform glaucous hue, almost as much so as the fruit of the Plum when ripe and covered with bloom; but that appearance has gone off, and the foliage is now of a deep rich glossy green.

While the beautiful yellow flowers are as large and showy as in the old Hibbertia volubilis, they are quite free from the offensive smell of that species.

Fig. 1. represents the appearance of the ovaries.

Our drawing was made in the garden of the Horticultural Society in May last. It there proves to be a greenhouse shrub, requiring the same treatment as many other New Holland plants. It grows freely, if potted in a compost consisting of peat, loam, and sand in equal proportions. The pot should be well drained, and a few pieces of potsherds mixed through the soil. Plenty of air and water must be given in summer,

and shade in sunny days. In winter the plant should be placed in some airy place free from frost, and be watered in fine weather. It may be propagated by cuttings in the usual way.

Miss Drake Pub. by J. Ridgway 169 Piccadilly Dec.r Barclay sc

SAXIFRĂGA ciliāta.

Fringed Saxifrage.

DECANDRIA *DIGYNIA.*

Nat. ord. Saxifragaceæ.
SAXIFRAGA. L.

S. *ciliata;* foliis obovatis coriaceis grossè ciliatis denticulatis basi subauriculatis, petiolo magno vaginante, pedunculo rigido scabriusculo cymosò paniculato, calyce 5-partito ventricoso hirsuto laciniis foliaceis, petalis spathulatis unguiculatis venosis.
S. ciliata, *Royle Illustr. Fl. Himal. p.* 226. *t.* 49. *f.* 2. *Walpers Repertorium,* 2. 365. *no.* 23. *nec* 24.

This plant, of the section Bergenia, and very nearly allied to S. ligulata, is like that species a native of the mountains of Northern India. Dr. Royle speaks of it thus :—

"I have had some difficulty in naming this plant, as the published descriptions, as well as the distributed specimens of Wall. Cat. 4492. and figures of S. *ligulata,* to which it is most nearly allied, do not correspond with one another; indeed, two distinct species pass under that name. Dr. Wallich (*As. Res.* 13. *p.* 398.) describes S. *ligulata* with leaves 'basi angustata,—crenato—dentata, dentibus crenisque ciliis longis —uti omnes plantæ partes lævia, carnosa, ad lentem punctata.—Scapus crassus apice semel bisve furcatus.—Flores congesti in paniculam terminalem compactam subracemosam nudam leviter nutantem.—Calyx profundè quinquefidus; laciniæ leviter ciliatæ.'—A plant corresponding in every respect with this description, except in the leaves being less ciliated, I have found growing in Choor, Simla, and Kedar-kanta, and with which the specimens in the East India Herbarium, 4492. 2. from Buddrinath, correspond, as well as the figure in Loddiges' Botanical Cabinet, t. 747.

"The plant, S. *ciliata,* figured in plate 49. fig. 2. is found on the Mussooree and Suen Range, at lower elevations than

S. *ligulata*. The leaves are ovate and obtuse at both ends, extremely hairy on both, but especially the under surface and along the nerves; the peduncle is slender; the inflorescence an erect, but lax spreading panicle; the calyx gamosepalous, and cup-shaped at the base, and consequently less deeply divided than in S. *ligulata*, with the laciniæ entire, and not ciliate, and the petals more unguiculate."

It must be confessed that the plant now represented does not agree altogether with this description; in particular it wants the hairiness of the leaves spoken of by Dr. Royle, but we ascribe this difference to cultivation. In fact, the plant in the garden of the Horticultural Society, from whence this drawing was made in March, 1843, was raised from seeds sent under the name of S. ciliata from the Botanical Garden of Saharunpur.

We must remark that Dr. Walpers has a second S. *ciliata* from India; the latter being S. *imbricata* of Royle.

This is a robust hardy perennial, requiring the same soil and treatment as S. crassifolia; but when planted in the open border it must not have a situation which is damp in winter, or fully exposed to the sun in summer. It is easily increased by dividing the old plants; or by seeds, which should be sown when ripe in pots filled with sandy peat and a small portion of loam. It flowers about May in the open border.

Pub. by J. Ridgway. 169. Piccadilly Decr. 1. 1843.

ONCIDIUM bicŏlor.

Two-coloured Oncidium.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ. § Vandeæ.
ONCIDIUM. *Supra, vol.* 14. *fol.* 1073.

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§ Euoncidium, Heteranthium ; *planifolia, tetrapetala, micropetala.*

O. *bicolor ;* pseudobulbis ovalibus compressimis utrinque 3-costatis, folio solitario oblongo sessili striato, paniculâ divaricatâ, sepalis lateralibus basi connatis petalisque ovatis acutis, labello maximo bilobo, disci tuberculo hastato 3-partito, columnæ alis rotundatis dentatis.

This charming species of Oncidium, one of the rarest of its genus, was obtained by Messrs. Loddiges from the Spanish Main, and is 1243 of their catalogue. It flowered with them in September, 1842, when the accompanying figure was made.

Among other peculiarities of the species may be mentioned its very thin pseudo-bulbs, and three-lobed crest of the labellum, the front lobe of which projects forward, while the laterals are at right angles to it, and slightly toothed. It has moreover a very large lip, which, although deep clear yellow on the upper side, is almost white underneath, as also happens in some of the Chive-leaved species.

Its nearest affinity is with O. bifolium.

MISCELLANEOUS MATTER

OF THE

BOTANICAL REGISTER.

1843.

MONSTRUM PLANTI. *Plant's Vegetable Monster.*

"WHAT is this, of which three roots are represented in the vignette?—In consequence of the statement made by Mr. Plant, nurseryman of Cheadle, (see above Plant's anisanth, 1842, fol. 37.) that he had obtained mules from a Gladiolus by an Amaryllidaceous plant, I was anxious to investigate minutely its correctness. It will be proper to premise, that the mule figured as Plant's anisanth is a true Gladiolus, raised between Glad. splendens (Anisanthus splendens, Sweet Br. Fl. G.) and a hybrid, sold under the name of Colvilli, between G. blandus, cardinalis, and tristis. Mr. Sweet improperly made a genus Anisanthus of G. splendens and Cunonius, and another genus of G. abbreviatus, three species of Gladiolus, which have the lower lip abbreviated, a feature not more important than the conversion of the three petals into short bristles in Iris setosa. I always considered that something

nearly approaching to G. abbreviatus might be raised between G. tristis and Cunonius.

" Mr. Plant has frankly communicated all the information he can give concerning his monsters, and has sent three of his four roots to me. I have made a careful sketch of them, as above represented. He states, that in 1839 he carried from the greenhouse pollen of a plant, which by his description is certainly a cross-bred Hippeastrum closely akin to H. Johnsoni, having dark red flowers striped with white, to a flower of Gladiolus blandus in a cold frame. The seeds produced were rather deficient in the usual foliaceous wing. Four roots were the produce. He states, that their leaves were less erect and more glossy than those of a Gladiolus. In the second season 1840-1 he was ill, and they suffered from neglect. They are now at rest after three years growth. The appearance is quite monstrous. There is scarcely a vestige of a regular corm, but the base is irregularly formed and beset with yellowish fleshy substances having some affinity to the scales of a Lilium, and topped with the wrinkled remains of tubular sheaths which enveloped the base of the leaves. One of them, from the number of those tubular processes, seems to have formed offsets. To the eye, in their present state, they certainly exhibit no immediate hope of vegetation, but in due time they will probably do so. Mr. Plant says that they were raised in a mixture of sand and rotten manure. The question therefore arises, whether these strange productions are diseased Gladioli, analogous to the monstrous turnips, like bunches of keys, which often occur in highly manured and hot sandy soil? or mules of such anomalous birth? or roots of some plant unknown to me, accidentally confounded by Mr. Plant with his seedling Gladioli? Hippeastrum, the asserted male parent, has one very extraordinary peculiarity, that its several species breed more willingly by the pollen of any hybrid of its own genus, however complicated its origin, than by their own pollen. A bulb of H. Organense just imported from the Organ mountains having thrown up two two-flowered stems, one flower on each stem was touched with its own dust, and the other by that of a triple mule. When the flowers withered, the germen of each of the former swelled first, but after a few days the latter began to swell also, and from that moment the growth of the former stopped, and they soon withered; both

the latter, proceeding rapidly, produced abundance of good seed. Such has been the invariable result of six years experiments, but we have failed in all attempts to mix Hippeastrum with the nearly allied Habranthus or Zephyranthes. In the form of its seed and capsule it has some affinity to Gladiolus. I tried 30 years ago vainly to impregnate G. blandus by H. crocatum. Can any person recognize the above, as the roots of any known plant? or has Mr. Plant bred an anomalous monster between the two natural orders Amaryllidaceæ and Iridaceæ, though all other persons have as yet failed in obtaining any mule vegetable between two genera decidedly distinct in one and the same order? I do not think disease could have produced such Gladiolus roots. Mr. Plant tried to make a like cross last year by the Hippeastrum on a hybrid Gladiolus, and he has sent me a bulb which is its produce, and two seedlings from another pod not crossed by him on the same Gladiolus stem; but it is evident, that these bulbs are all true Gladioli, though the two pods have been evidently set by the pollen of two different species or varieties of Gladiolus, which the bees might effect without his privity. Mr. Plant pays a great deal of attention to the state of the stigma and pollen, but I cannot find that he has done so more than I have done during the last thirty years, when I was desirous of obtaining a difficult cross. Every encouragement should be given by cultivators to Mr. Plant, who would perhaps effect much by industry and perseverance, if his means were equal to his zeal."

W. Herbert, Spofforth, Oct. 1842.

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1. CATASĒTŪM Wailĕsiĭ.

Hooker in Botanical Magazine, t. 3937.

C. *Wailesii;* "foliis oblongo-lanceolatis, perianthiis ovatis compressis conniventibus, sepalis petalisque acuminatis, labello subconico cucullato ore contracto integerrimo, antheris hemisphærico-compressis umbonatis umbone subtùs squamifero."

This is a green-flowered species from Honduras, with all the appearance of C. tridentatum; Sir W. Hooker, however, assigns the following reasons for regarding it as a distinct species.

"The strange forms exhibited in the different parts of the

flower of the several kinds of Catasetum have often attracted notice. In the present instance, the most striking peculiarity is to be found in the anther-case, which, instead of being carried out into a very long point or beak, is singularly short and flattened, in the centre of which is an umbo or elevated tubercle, and beneath this, a pretty large, membranaceous, spreading scale. Whether this be simply a sport of nature, or a permanent character, indicating a truly distinct species, I will not take upon me to say."

2. BRĀSSĬĂ brachīătă.

Lindley in Bentham Plant. Hartweg. p. 94.

This fine plant has flowered in the collection of Messrs. Rollissons, where it exists under the garden name of *Brassia Wrayæ.* It has larger flowers than any other species, with very dark brown spots on a pale ground. The lower sepals are three inches long, and the lip is half the length, a good deal waved at the edge, and rather lobed. It is a very distinct species.

3. RENANTHĒRĂ matutīnă.

Lindley in Gen. and Sp. Orch. p. 218.

A very pretty plant with small cinnamon and scarlet flowers, collected in a stiff panicle. It has the habit of the old R. coccinea, but is not to be compared with it for beauty, the flowers not being above half an inch across. It was exhibited at the last meeting of the Horticultural Society, from His Grace the Duke of Devonshire, at Chatsworth, and we have also received it from Messrs. Rollissons. It is understood to have been brought from Manilla by Mr. Cuming, from whom we have a wild specimen.

4. EPIDĒNDRŪM aurītūm.

E. (Encyclium) *auritum;* pseudobulbis elongatis compressis squamis vaginatis, folio angusto ligulato obtuso, racemo debili 3-floro folio breviore, bracteis marcidis carinatis internodiis longioribus, ovario nigro-furfuraceo, sepalis lineari-lanceolatis acutis patentibus, petalis conformibus duplò brevioribus erectis, labello lineari convexo arcuato medio carnoso subrugoso apice membranaceo, columnâ apice tridentatâ, antherâ utrinque auriculâ simplici bifidâ subulatâ auctâ.

A little Epidendrum from Guatemala, of which we have

specimens from Mr. Skinner. The flowers are very pale green, almost white, with no spots or stains upon them. It has not much beauty. It is near E. tripunctatum. A very singular feature in it is the presence of one or two fine pointed horns on the anther on each side, which give it, when seen in front, the appearance of some insect's head.

5. CLEISŌSTŎMĂ dealbātūm.

C. *dealbatum*; foliis linearibus canaliculatis carnosis dealbatis, spicis simplicibus glaucis, sepalis petalisque rotundatis, labelli calcare ovato emarginato lobis lateralibus acutis intermedio ovato carnoso multò majore incurvo, columnæ dente bilobo.

An Orchidaceous plant of little beauty, obtained from Manilla by Messrs. Loddiges, through Mr. Cuming. The flowers before they expand are almost white, when open they are bright yellow, with a white lip; but they are too small to produce much appearance.

6. DENDRŌBĬŪM ăquĕūm.

D. *aqueum*, (§ foliis planis, floribus gemellis, labello trilobo) foliis ovato-oblongis undulatis acuminatis, floribus patulis cornu brevi obtuso, sepalis petalisque ovatis, labelli trilobi pubescentis laciniâ mediâ ovatâ denticulatâ basi altè excavatâ lateralibus latioribus rotundatis margine anteriore serrulato.

A native of Bombay, whence it was imported by Messrs. Loddiges, with whom it flowered in November, 1842. The habit is that of D. Pierardi: the flowers are rather larger, and of a pale watery green colour.

7. PLEUROTHĀLLĬS fœ̄tēns.

P. *fœtens*; folio ovali coriaceo subtus concolori cauli carinato triquetro æquali, spathâ univalvi acutâ coriaceâ striatâ pauciflorâ, floribus subsessilibus tomentosis coriaceis, sepalis oblongis convexis subæqualibus intùs papillosis lateralibus connatis, petalis oblongis acutis glabris denticulatis subdiaphanis, labello lineari-oblongo obtuso lævi lineis duabus elevatis carnosis basi excavato.

A species very near the Mexican *P. aphthosa*, with an unpleasant odour. It has no beauty, and is a native of Brazil, whence it was obtained by Messrs. Loddiges. The leaves are rather narrower than in P. aphthosa, and green not purple underneath.

8. OBERŌNĬĂ miniātă.

O. *miniata;* caulescens, foliis equitantibus brevibus subfalcatis acutis, spicâ longissimâ pendulâ laxiflorâ, bracteis linearibus convolutis laceris, pedicellis filiformibus glanduloso-pilosis, sepalis ovatis erectis acutis, petalis conformibus minoribus, labello oblongo concavo versus apicem angustato retuso.

A singular epiphyte, belonging to a section of this strange genus, of which *O. anceps* is the type, and of which there are many species. That now figured was imported from Sincapore by Messrs. Loddiges. It has the habit of Aporum anceps; its flowers are extremely small, very brittle, vermilion red, and loosely arranged in a nodding spike sometimes as much as eight inches long.

9. ANGRÆCŪM vesicātūm.

A. *vesicatum;* acaule, foliis canaliculatis recurvis spicæ pendulæ æqualibus, floribus distantibus divaricatis, sepalis ovatis, petalis linearibus acutis, labello ovato acuto, calcare arcuato ovario longiore apice inflato diaphano.

From the Ashantee country, whence it was obtained by Messrs. Loddiges. It bears white, inconspicuous flowers, whose spurs look like a horn with a semi-transparent bladder at the end. It seems to range next to A. caulescens from the Isle of France.

10. ACIANTHĒRĂ punctātă.

Scheidweiler in Gartenzeitung, 1842, *p.* 292.

" Acianthera. Sepala conniventia, lateralibus connatis, supremo galeato. Petala minora cuneiformia, apice dilatata; labellum cum columna articulatum, 3-lobum; lobis lateralibus acutis, intermedio plano obtuso; Columna alata membranacea apice lacerata; anthera apiculata, unilocularis; pollinia 2, materie pulverea ad basin cohærentia.

" A. *punctata* (Scheidw.); foliis solitariis, ovatis, obtusis, glaucis, utrinque purpureo-punctatis; sepalis extus villosis, intus purpureo-punctatis vel ocellatis; labello purpureo, petalis punctatis. Flores racemosi, racemi pauciflori cernui, basi spathacei."

An orchidaceous plant, stated in the work above quoted to be a native of Brazil, and to belong to the Malaxeous division. It is described as resembling, at first sight, a Pleurothallis; very small; with oval leaves, and five or six greenish grey flowers on a common flower-stalk.

11. CENTRANTHĒRĂ punctātă.

Scheidweiler l. c. p. 293.

"CENTRANTHERA. Sepala lateralia connata, supremum galeatum; petala minora cuneiformia. Labellum cum columna articulatum, 3-lobum, lobis lateralibus minimis acutis, intermedio ovato obtuso. Columna alata, sub-membranacea apice lacerata. Anthera apiculata, unilocularis, pollinia 2 materie pulverea cohærentia.

"C. *punctata* (Scheidw.); folio ovato, obtuso, glauco, utrinque fusco punctato. Sepalis extus villosissimis, intus fusco-ocellatis; labellum purpureum. Flores racemosi, racemi radicales cernui. —Planta epiphyta brasiliensis, caule semiunciali, folio carnoso unciale exacte ovato."

Another new genus of Orchidaceæ, according to Mr. Scheidweiler, found in Brazil, and cultivated in the German gardens. It, like the last, is represented to be very like a Pleurothallis; its leaves are glaucous with brown pits.

12. LIPĂRĬS alātă.

Scheidweiler l. c. p. 293.

"L. *alata* (Scheidw.); foliis 6, oblongo-ovatis, acutis, plicatis, petiolatis, spica erecta multiflora brevioribus. Scapo alato, squamoso, purpureo; alis 6, membranaceis. Sepalis petalis linearibus latioribus; labello mucronato revoluto atropurpureo. Gynostemium viride; flores ante anthesin purpurei."

A Mexican plant, which has flowered at Lacken, in the garden of His Majesty the King of the Belgians. It is stated to be rather prettier than the majority of its race, with a spike of flowers six inches long, and purple flowers half an inch long, with a crimson lip.

13. MAXILLĀRĬĂ galeātă.

Scheidweiler l. c. p. 309.

"M. *galeata* (Scheidw.); pseudobulbis ovatis compressis diphyllis; foliis ovato-oblongis, acutis, plicatis; scapis radicalibus unifloris; sepalo supremo petalisque lateralibus conniventibus subgaleatis, sepalis lateralibus patentibus, omnibus lanceolatis acutis, labelli trilobi lobo intermedio lingulato, lateralibus parvis acutis; anthera galeata, loculorum valvulis membranaceis transversim dehiscentibus; pollinia 4, per paria in glandulam hyalinam transversam sessilia.

"Scapus duo pollices longus, purpureus; bracteæ quatuor, ventricosæ, acutæ, margine purpureæ. Flores purpurei, striato-punctati; labellum

cum basi producta columnæ articulatum, atropurpureum, basi dilute roseum."

A Brazilian species, described from the stove of Count Aremberg. It is said to be scentless, and to have dirty purple flowers.

14. ONCĪDĬŪM Forkĕlĭī.

Scheidweiler l. c. p. 309.

"O. *Forkelii* (Scheidw.); pseudobulbis monophyllis; foliis coriaceis, oblongis, acutis; vaginis ciliatis; scapo erecto punctato, trifloro, foliis breviore. Sepalis lateralibus liberis, oblongo-ovatis, acuminatis, superiore ovato undulato; petalis oblongis margine undulatis; labello trilobo, lobis lateralibus minoribus, intermedio maximo rotundato baseos callis duobus instructo, anteriore compresso bicorni, posterioris lamina plicata; gynostemio alato, alis lilacinis: Anthera carnosa galeata, pollinia duo in glandulam bicornutam sessilia.

"Folia 10-12 pollices longa, 3-4 poll. lata. Sepala extus virentia intus fusco-maculata, petala apice virentia basi fuscata, labellum lilacinum."

A Mexican species that has flowered in the collection of His Majesty the King of Belgium, at Lacken. It has been named after Mr. Forkel, the chief gardener there. It is said to be one of the handsomest of the genus, with flowers an inch in diameter, greenish yellow, spotted with crimson; the petals clear violet, the lip large and round, with small side lobes.

15. ONCĪDĬŪM cuneātūm.

Scheidweiler l. c. p. 309.

"O. *cuneatum* (Scheidw.); pseudobulbis subcylindricis, arcuatis, rugosis, apice truncatis, monophyllis; foliis lanceolatis acutis; paniculis radicalibus cernuis; sepalis lateralibus cuspidatis in unum cucullatum connatis, superiore truncato cucullato; petalis cuneatis apice minutissime crenulatis; labello trilobo, lobis lateralibus acutis, intermedio cuneato emarginato; crista triplici; posteriore quadridentata, intermedio lamellis quatuor parallelis composita, anteriore bicornuta; columnæ alis linearibus, denticulatis, recurvis, acutis."

A Brazilian plant from Count Aremberg's collection. It is said to be a small species with white flowers spotted with crimson, and purple wings to the column. The leaves are three inches long and six inches broad, the flower-stalk four inches long.

16. LÆLĬĂ ālbĭdă.

A beautiful variety of this, with a violet lip, painted at the base with purple veins, has flowered with Mrs. Lawrence at Ealing Park.

17. TRICHOCĒNTRŪM recūrvūm.

T. *recurvum;* bracteis distichis cucullatis ovatis acutis, sepalis petalisque ovatis acutis, labello oblongo basi purpureo bidentato, calcare recurvo ovarii longitudine, columnæ alis cuneatis denticulatis, antherâ pubescente.

A Guayana plant, imported by Messrs. Loddiges. It resembles Tr. fuscum in habit, but is smaller. The lip is white, with a deep purple spot at its base; afterwards it changes to pure yellow. The spur is long, and curved backwards and upwards, so as to arch over the back of the flower.

18. TRICHOCĒNTRUM candĭdum.

T. *candidum;* bracteis ovatis acutis, sepalis petalisque ovatis acutis, labello oblongo emarginato basi obsoletè bidentato ecalcarato gibboso, columnæ alis ovatis acutis, antherâ villosâ.

A little Guatemala plant, with white flowers, slightly tinged with yellow. It is remarkable for the want of a spur, whose place is supplied by a short projection.

19. ODONTOGLOSSUM Rossii.

Lindley in Bot. Reg. 1839. *t.* 48.

A pretty variety of this charming plant has flowered with Mr. Barker. It has narrower and darker coloured sepals, smaller flowers, and the callus at the base of the lip white, not yellow. It seems almost intermediate between O. Rossii and O. stellatum; especially as the lip is rather more ovate than in the former species.

20. EPIDĒNDRUM rubrocīnctum.

E (Spathium) *rubrocinctum;* . . . . . paniculâ amplâ cernuâ, sepalis oblongis concavis acutis coriaceis, petalis angustè linearibus, labello transverso cordato trilobo suprà tricarinato; lobi medii trilobi dente intermedio minuto, columnâ inappendiculatâ.

Of this I know no more than that it is a plant with the

habit of E. nutans, from the garden of Mr. Brocklehurst, where nothing is recorded of its origin. Mr. Bateman, who sent it to me, states that it has a large branching panicle. The sweet-scented flowers are a dull yellowish green, bordered with dull purple; the lip is more yellow than the sepals. It is a plant of more beauty than E. nutans.

MAXILLARIA.

The original genus of this name was so loosely defined that it was understood to comprehend all Orchidaceous plants whose floral envelopes are so arranged that they have a ringent appearance, and a decided extension in front in the form of a chin. I have no intention of discussing in this place the history of the genus, the additions made to it, or the limits of the new genera already formed in its vicinity; but I shall confine myself to the condition in which it was left upon the publication of the "Genera and Species of Orchidaceous Plants" in the year 1833. At that time the number of species, known or guessed at, was inconsiderable, and consisted of plants extremely different in appearance, as well as structure, but connected by the common character of a pair of simple or two-lobed pollen-masses, having a distinct gland with a single caudicula, and belonging to a flower whose lateral sepals, oblique at their base, were adherent to the lengthened foot of the column. In fact, Maxillaria, among Vandeæ, answered in many respects to Dendrobium among Malaxeæ.

But experience has shewn that such a character as this brings into association plants of very different appearance, that it includes many other characters, of as much importance as itself, and brings together a group of species inconveniently large for systematical purposes. Such being the case it has now become desirable to reconsider the distinctive marks of Maxillaria, to see how far they are capable of sub-division, and to endeavour to circumscribe Maxillaria proper within more definite limits than were assigned to it in 1833.

The true Maxillarias, that is to say those intended by the authors of the Flora Peruviana, who founded the genus, are evidently the species with radical inflorescence, and a pseudo-bulbous growth, such as *M. picta, punctata, squalens*, and the like; they form a tolerably natural group, and have, in all

cases, a pair of double pollen-masses resting on a crescent-shaped gland, without any distinct caudicula; to them it is desirable strictly to limit the name. But a great variety of other plants have been gradually associated with them in consequence of their having the chin which so strongly marks, among Vandeæ, Maxillaria proper; and, in fact, this chin must now be considered more an indication of a division of Vandeæ than of a genus.

For example, *Maxillaria Warreana*, has a globular flower, expanded indeed, but only a little oblique, and by no means ringent: this I would call Warrea.

Then those species which are near *M. lentiginosa*, having also a flower with nothing ringent about it, have an apparatus of a singularly rugged nature, or at least much tuberculated, on the lip, and a gland of an ovate form bearing two double pollen-masses sessile; to these the name Promenæa may be assigned. Allied to them, but widely different in the small roundish gland and long setaceous caudicula on which the two double pollen-masses are seated, is *Maxillaria cristata*, which may be called Paphinia. Another set, with a similar condition of gland, caudicula, and pollen-masses, but well distinguished by the surface of the lip, is formed by such species as *M. aromatica*, *macrophylla*, &c. and these I would call Lycaste. As for *Maxillaria Steelii*, with its long thonged leaves and deficient pseudo-bulbs, it has nothing of the aspect of a Maxillaria, and having a pair of double pollen-masses sitting on a gland tapering to each end with the form of a gliding serpent, it may be advantageously struck off under the name of Scuticaria.

These changes having been effected, the genus Maxillaria will remain associated with Dicrypta, Xylobium, Camaridium, and Siagonanthus, the true value of which I shall shortly endeavour to settle.

But it is not merely as an old genus, into which far too much alien blood has been infused, that Maxillaria has to be considered. We must certainly regard it as the type of a *Division* of Vandeæ, to which a good number of other genera will have to be associated. These genera are all characterized by having the lateral sepals more or less oblique at the base, the consequence of which is that the flower-bud has always, more or less visibly, a chin, and by having a labellum which is destitute of a spur, or of any direct approach to one.

It is also strictly an occidental division, saving the genus Polystachya, unless we admit *Appendicula* and *Cryptoglottis*, which are insular Indian. Those genera however require further examination.

I do not profess to be able of myself to settle at present the true limits of what may be called the Maxillaridous division of Vandeæ; but, in order to assist others who may be working in the Orchidaceous mine, I will just put down what I at present think will be the genera to be referred to it. The tabular form being the most convenient for study, I have adopted it, printing in italics those genera which seem certain, and in Romans such as require much further examination.

MAXILLARIDÆ. Sepala lateralia plus minus obliqua, sæpius majora, unde alabastrus hinc gibbus. Labellum columnæ appressum, ecalcaratum. Columna semiteres, basi producta. Pollinia 2-4 (-8?).

[The genus Zygopetalum, whose lateral sepals are very little oblique, joins this Division of Vandeæ to that of Sarcanthidæ, in consequence of its near affinity to Eulophia in the last mentioned division.]

* Labellum medio interruptum. *Stanhopea, Houlletia, Peristeria, Anguloa* (Cuitlauzina?).

* Labellum continuum.

a. Sepala lateralia divaricata incurva basi angustata; *Govenia, Batemannia.*

b. Sepala lateralia ascendentia; *Zygopetalum.*

c. Sepala lateralia recta, sæpiùs triangularia.

‖ Pollinia 2; *Acropera, Chænanthe, Malachadenia.*

‖ ‖ Pollinia 8; v. 4 plura; Appendicula, Cryptoglottis.

‖ ‖ ‖ Pollinia 4; v. 2 biloba.

‡ Flores regulares clausi; *Ornithidium.*

‡ ‡ Flores regulares expansi; *Trigonidium, Psittacoglossum, Stenia, Promenæa, Warrea.*

‡ ‡ ‡ Flores ringentes.

1. Caudiculæ 2; *Bifrenaria.*
2. Caudicula 1.

¶ Columna maxima navicularis, clinandrio cucullato. *Huntleya.*

¶ ¶ Columna clavata, angusta, clinandrio nudo.

☞ Glandula lunata, caudiculis brevissimis v. nullis; *Maxillaria,* Dicrypta, Xylobium, Camaridium, Siagonanthus, *Scuticaria.*

☞ ☞ Glandula ovata, caudiculâ brevissimâ, v. O. *Scaphyglottis.*

☞ ☞ ☞ Glandula minuta; caudiculâ setaceâ. *Polystachya, Paphinia, Lycast*

It is not improbable that, besides these, *Maxillaria tetragona*, and a few others, may require to be further separated.

Having thus explained my notions of the manner in which Maxillaria and the genera allied to it may be best systematised, I proceed to add very brief characters of the new genera and their species.

PROMENÆA. Sepala patula. Labellum trilobum, medio cristatum v. multo-tuberculatum. Columna brevis, semiteres. Glandula ovata. Pollinia 4, geminata, sessilia.

1. P. *stapelioides* (Maxill. stapelioides, *L.* 146. *B. R.* 1839. *t.* 17.); pseudobulbis ovatis tetragonis 1-2-phyllis, foliis tenuibus lanceolatis patentibus pallidè glaucis reticulatis, pedunculo diffuso bifloro, sepalis petalisque subrotundo-ovatis acutis patulis subæqualibus, labello oblongo trilobo: laciniis lateralibus erectis linearibus obliquis obtusis intermediâ ovato-oblongâ basi cucullatâ, cristâ transversâ flexuosâ carnosâ intùs dente carnoso ovato auctâ.——*Brazil.*——Flowers green externally, yellowish internally, speckled and banded with purple.
2. P. *xanthina* (Maxill. xanthina, *Lindl. Bot. Reg.* 1839. *sub t.* 17.); pseudobulbis ovalibus tetragonis 1-2-phyllis, foliis angustè lanceolatis, pedunculis ascendentibus unifloris pedicello sterili terminatis, bracteâ ovatâ mucronatâ cucullatâ, sepalis petalisque oblongis acutis patulis subæqualibus, labello oblongo trilobo laciniis lateralibus erectis linearibus obtusissimis integris intermediâ bilabiatâ: labio superiore carnoso abbreviato truncato 5-dentato inferiore oblongo acuto.—*Brazil.*—Flowers yellow.
3. P. *lentiginosa* (Maxill. lentiginosa, *Lindl. in Bot. Reg.* 1839, *misc.* 93.); bracteis latè ovatis acuminatis, labelli lobo medio ovato-oblongo obtuso, cristâ transversâ medio processu quadrato tridentato auctâ, antheræ apice incurvo; alioquin *M. stapelioidi* similis.——*Brazil.*——Very like P. stapelioides; but the sepals are more acute, the purple spots redder, more distinct, and less run into bars; the lip is of the same colour as the petals, and its transverse crest has a square three-toothed process in the middle.
4. P. *Rollissonii* (Maxill. Rollissonii, *Bot.Reg. sub fol.* 1986.et 1838, *t.* 40.); pseudobulbis subrotundis compressis bifoliis, foliis lanceolatis apice recurvis, scapis subunifloris diffusis laxè vaginatis, sepalis carinatis lateralibus basi subæqualibus petalisque acutissimis, labelli lobis lateralibus ovatis angustis acutis intermedio oblongo membranaceo apiculato margine deflexo; callo disci elevato carnoso anticè transverso lobos laterales labelli conjungente medio producto truncato tridentato et denticulis reflexis posticè fornicato truncato bilobo.——*Brazil.*——Flowers pale yellow, with purple spots on the lip.
5. P. *graminea* (Maxill. graminea, *Bot. Reg. sub fol.* 1802.); pseudobulbis nullis, foliis gramineis recurvis, perianthio campanulato, sepalis oblongis obtusis lateralibus paululum connatis, petalis angustioribus, labello cum pede longè producto columnæ articulato trilobo: lobis lateralibus semiovatis acutis ascendentibus intermedio majore reniformi, tuberculo disci magno carnoso truncato posticè bilobo.——*Guayana; Brazil, in the prov. of Bahia.*—— Flowers pale yellow, banded with dull purple.

SCUTICARIA. Flores ringentes anticè in mentum rotundatum producti, expansi. Labellum continuum, membranaceum, trilobum, medio tuberculatum. Columna semiteres. Pollinia 4, per paria in glandulam utrinque acuminatam medio dilatatam sessilia, extus angulata.——Rhizoma articulatum, ramosum, ebulbe. Folia flagelliformia.

1. S. *Steelii* (Maxill. Steelii, *Bot. Mag. t.* 3573. *Bot. Reg. t.* 1986.).——*Guayana.*——Flowers large, yellow, spotted with purple.

WARREA. Flores subglobosi, subregulares, mento brevi rotundato. Labellum continuum, indivisum, lineis elevatis carnosis in medium. Columna semiteres, clavata. Pollinia 4, per paria in caudiculam brevem linearem inserta, glandulâ triangulari.——Herba terrestris, pseudobulbosa. Folia arundinacea. Scapus radicalis elatus apice racemosus. Flores magni speciosi.

1. Warrea *tricolor* (Maxill. Warreana, *Lodd. Bot. Cab. t.* 1884. *L. no.* 30.); Folia oblongo-lanceolata acuminata plicata, scapo radicali erecto vaginato multifloro foliis longiore. Sepala ovata concava acuta basi subæqualia, petalis minoribus conformia; labello brevissimè unguiculato obovato-oblongo indiviso cucullato obtuso jugis tribus in medio elevatis carnosis, superficie laminæ seriatim corrugatâ marginibus planis. Sepala fulvo-lutea: lateralibus basi parùm inæqualibus. Labellum basi luteum, apice pallidum, medio purpureum, cum columna sub-articulatum.——*Brazil.*

PAPHINIA. Flores subregulares, expansi, petaloidei, parum in mentum producti. Labellum parvum, unguiculatum, tripartitum, glandulis filiformibus apice alibique obsitum. Columna clavata, elongata, semiteres, apice auriculata. Pollinia 4, per paria caudiculæ elongatæ apice setaceæ affixa, glandulâ minutâ subtriangulari; rostello subulato. ——Herba pseudobulbosa, scapo pendulo paucifloro.

1. Paphinia *cristata* (Maxill. cristata, *Lindl. in Bot. Reg. t.* 1811.); flores pulcherrimi extus albi, intus purpureo interrupte fasciati; petalis apice omnino purpureis. ——*Trinidad and Guayana.*

LYCASTE. Flores ringentes, petalis sæpius dissimilibus, in mentum breve producti. Labellum medio appendice transverso carnoso integro v. emarginato auctum. Columna elongata, semiteres, sæpius pilosa. Pollinia 4, per paria caudiculæ angustæ elongatæ adnata; glandulâ parvâ subrotundâ; rostello subulato.——Herbæ pseudobulbosæ, foliis plicatis. Scapi radicales, erecti, uniflori. Flores semper speciosi bracteâ magnâ spathaceâ suffulti.

1. L. *macrophylla* (Maxill. macrophylla, *Pöppig. gen. pl.* 1. *t.* 64. *Bot. Reg.* 1838, *misc.* 175.); bracteâ herbaceâ cucullatâ acutâ ovarii longitudine,

sepalis oblongis undulatis patentibus apice recurvis basi intùs pilosis, petalis erectis columnâ longioribus oblongis carnosis apice recurvis margine postico versus apicem sublobato, labello breviore oblongo concavo apice trilobo : laciniâ intermediâ subrotundâ crenatâ pilosâ, appendice linguæformi concavo adnato inter lacinias laterales rotundatas incurvas, antherâ villosâ.——*Peru.*——Flowers greenish, with a little purple on the lip. According to Pöppig it inhabits dry thickets.

2. L. *plana* (Lindl. in Bot. Reg. 1842. misc. 96.); bracteâ supremâ ventricosâ cucullatâ ovario longiore, sepalis oblongis planis basi in cornu brevi conico connatis, petalis conformibus apice tantùm recurvis, labelli trilobi lobis lateralibus apice crenulatis intermedio subrotundo serrato callo elevato obtuso obsoletè trilobo, columnâ pubescente, antherâ villosâ. ——*Peru.*——Nearly allied to *Lycaste macrophylla*, of which it has quite the habit. It differs in the petals being quite even not undulated, and in the lateral sepals being much more exactly oblong; the tubercle on the lip is also much more obtuse. In colour too they are different. *L. macrophylla* has olive-green sepals, and petals almost colourless. *L. plana* has the sepals a deep rich madder-red inside, and the petals are richly tipped with crimson.

3. L. *costata* (Maxill. costata, *Bot. Reg.* 1838. *misc.* 175.); bracteâ herbaceâ cucullatâ acutâ ovario multò longiore, sepalis petalisque M. macrophyllæ similibus, labello trilobo concavo laciniâ intermediâ rotundatâ serratâ, appendice carnoso emarginato adnato 5-costato inter lacinias laterales, antherâ glabrâ.——*Peru.*——Quite with the habit of L. macrophylla, but certainly distinct in the foregoing characters. Its colours are unknown.

4. L. *lanipes;* bracteâ obtusâ cucullatâ ovarii longitudine, sepalis petalisque oblongis elongatis, labelli lævis lobis lateralibus ovatis obtusis brevibus intermedio oblongo obtuso basi serrato, tuberculo obtuso concavo costato glabro, columnæ pede villoso.——*Guayaquil.*——Found by Mr. Hartweg at Paccha, a village on the Andes, in the vicinity of Loxa, and sent to the Horticultural Society. It has pale green flowers, two inches and a half long before they expand, without a trace of any other colour. It differs from L. costata in the flowers being much larger, while the bract is not longer than the ovary; and from L. gigantea in the very short bract, ribbed tubercle, and rounded not acuminate middle segment of the lip.

5. L. *gigantea ;* bracteâ herbaceâ sepalis subæquali, sepalis oblongo-lanceolatis lateralibus falcatis, petalis conformibus paulò minoribus, labello lanceolato acuminato laciniis lateralibus acutis intermediâ ovatâ acuminatâ serratâ, appendice carnoso emarginato.——*Guayaquil.*——Flowering stem more than two feet high. Sepals full three inches long; green according to Hartweg.

6. L. *Deppii* (Maxill. Deppii, *Lodd. Bot. Cab. t.* 1612. *L. no.* 24.); scapo foliis breviore: vaginis ventricosis acuminatis, sepalis oblongo-lanceolatis patentissimis, petalis minoribus oblongis undulatis conniventibus, labello cucullato 3-lobo apice recurvo in axi calloso margine piloso subcrenato: laciniis lateralibus rotundatis intermediâ oblongâ obtusâ, callo elevato ovato.——*Mexico.*——Sepals green and chocolate. Petals white. Lip yellow.

7. L. *Skinneri* (Maxill. Skinneri, *Bateman in Bot. Reg.* 1842, *misc.* 13.); bracteâ herbaceâ acutâ cucullatâ ovario multò longiore, sepalis patentibus oblongo-lanceolatis acutis, petalis 2-plo brevioribus ovalibus erectis supra

columnam convolutis apicibus reflexis; labelli trilobi lobis lateralibus erectis truncatis, intermedio longiore ovato rotundato deflexo, appendice carnosâ linguæformi inter lacinias laterales locatâ; columnâ subtus pubescente ——*Guatemala*.——The flowers measure upwards of six inches across, from the tips of the lateral sepals, while the latter are nearly an inch and half wide in the broadest part. The sepals are pure white, faintly tinged with crimson at the base;—the petals of a more rosy hue; the lip is almost covered with spots and streaks of the most brilliant carmine. The column is pure white at the apex, and mottled with crimson spots at the base; while a number of woolly hairs are scattered on its under side.

8. L. *aromatica* (Maxill. aromatica, *Hooker Ex. Flor. t.* 219. *L. no.* 20. *Bot. Reg. t.* 1871. Colax aromaticus, *Spreng.*); vaginis distantibus obtusis cucullatis; sepalis ovato-oblongis petalisque conformibus acutis, labelli semicylindracei sepalis æqualis laciniis lateralibus acuminatis obtusis intermediâ cuneatâ apice serrulatâ; appendice magnâ concavâ carnosâ truncatâ, columnæ facie villosâ.——*Mexico*.——The flowers yellowish-orange, scarcely spotted even inside the lip, which has two rows of hairs along its inner face.

9. L. *cruenta* (Maxill. cruenta, *Lindl. in Bot. Reg.* 1842. *t.* 13.); pedunculis rarò bifloris, vaginis distantibus obtusis cucullatis, sepalis ovatis obtusis lateralibus basi parùm productis, petalis minoribus conformibus, labello sepalis duplò breviore concavo trilobo laciniis rotundatis intermediâ crispâ pubescente: tuberculo parvo plano, columnâ pubescente.——*Guatemala*.——Resembles L. *aromatica*, but its leaves are broader; the flowers are four times as large when in health; the lip has quite a different form, with a deep crimson blotch at its base, and is not half the length of the sepals; the middle lobe is rounded not unguiculate, and has only a small tubercle in the middle instead of the large concave appendage that occurs in L. *aromatica*.

With regard to the species that belong to true Maxillaria, now that it has been weeded of these species, I must take another opportunity of examining them.

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21. HEXADESMIA fasciculata.

Ad. Brongn. in Ann. des Sciences, xvii. *p.* 44.

This plant has flowered in the garden of the Horticultural Society, where it has been saved out of a collection formed by Mr. Hartweg at Quezaltenango in Guatemala. It has small green flowers of no beauty, and the habit of Epidendrum clavatum.

22. ONCĪDĬŪM suave.

O. *suave;* pseudobulbis ovatis compressis utrinque bicostatis, foliis membranaceis lineari-oblongis canaliculatis acutissimis, paniculâ elongatâ ramosâ, sepalis petalisque lineari-lanceolatis acutis undulatis revolutis,

labelli lobis lateralibus rotundatis intermedio transverso apiculato minoribus, tuberculo pubescente anticè 5-lobo apice bidentato, columnæ alis rotundatis denticulatis.

A Mexican species, from the nursery of Messrs. Loddiges, very near O. reflexum. The flowers are much smaller; the sepals and petals chocolate colour, tipped with yellow; the lip yellow, with a cinnamon-brown middle. The wings of the column are yellow. It has a faint and agreeable odour. It was sent to Messrs. Loddiges by Deppe in the year 1835.

23. ONCĪDĬŪM sphegĭfĕrum.

O. *sphegiferum;* paniculâ ramosâ divaricatâ, sepalis distinctis acutis, petalis retusis, labelli lobo intermedio bilobo transversè oblongo unguiculato lateralibus serratis subæqualibus, tuberculo villoso ovato pulvinato, columnæ alis firmis rotundatis.

A Brazilian species, intermediate as it were between Oncidium *divaricatum* and *pulvinatum,* of which it has quite the appearance and colour: it is however clearly distinguished by the lateral lobes of the lip being serrated, and by the rounded firm purple wings of the column. Flowered with Messrs. Loddiges.

24. EPIDENDRUM cubēnsĕ.

E. *cubense* (Encyclium); pseudobulbis teretibus elongatis, foliis rigidis horizontalibus subæquilongis angustè ovalibus scapo debili paucifloro duplò brevioribus, bracteis minimis, sepalis petalisque conniventibus lineari-lanceolatis, labello obovato apiculato lineis tribus ramentaceis in medio, clinandrio glabro.

A Cuba plant, rare, delicate, and beautiful. Imported by Messrs. Loddiges. The pseudobulbs are two inches long; the scape six inches high; the flowers white, with a lip folded up, white at the end, yellow in the middle, and purple, as is the column, near the base.

25. ODONTOGLOSSUM constrictum.

O. *constrictum;* paniculâ laxâ basi foliosâ, sepalis petalisque expansis lineari lanceolotis acuminatis, labello medio constricto: hypochilio oblongo, epichilio subpandurato cuspidato serrato basi lamellis 2 serratis aucto, columnâ bicirrhosâ.

A native of La Guayra, with the habit of Oncidium spha-

celatum or some such plant. The flowers are yellow spotted with brown, except the lip which is white stained with violet. We have received it from Mr. Rucker, who first flowered it, and from Broughton Hall.

26. CYCNŌCHĒS pentadactўlŏn.

C. *pentadactylon*; racemo brevi stricto, sepalis petalisque lanceolatis reflexis supremo incurvo, labelli unguiculati margine revoluto dorso adnato hypochilio cornu recto incurvo aucto, metachilio 4-lobo medio foveato laciniis 2 posticis obtusis carnosis incurvis anticis subulatis, epichilio linguiformi acuto lævi.

This singular species has in some respects so much the appearance of C. maculatum, that when I first received it from Mr. Veitch of Exeter, in March last, I hesitated whether to regard it as a variety or a distinct species. A plant, obtained from Brazil direct by Messrs. Loddiges (Cat. no. 890) has decided me in regarding it as the latter. It has a short raceme of much larger greenish yellow flowers with broad chocolate-brown blotches, and its lip is quite remarkable, having 5 finger-like lobes, and no more, instead of the lateral comb-like fringes of C. maculatum. It is a very curious thing.

27. PITTOSPŎRŪM bicŏlŏr.

Hooker in Journ. of Botany, vol. 1. *p.* 249.

This small shrub requires the greenhouse, being a native of Van Diemen's Land, whence its seeds were sent by Mr. James Backhouse. It has lately flowered in the collection of John Willmore, Esq. of Oldfield near Birmingham, and proves to be a plant of little beauty, with small dingy chocolate coloured flowers, and deep green leaves silvery underneath.

28. BERBĔRĬS pallĭdă.

Hartweg in Bentham Pl. Hartweg. p. 34. *No.* 271.

"This beautiful addition to our collection of half-hardy evergreen shrubs was raised in the garden of Sir Charles Lemon, Bart. M.P. at Carclew in 1831, from seeds received from Mr. John Rule of the Real del Monte Mines, Mexico, and flowered for the first time in January 1843. It has been

hitherto grown in a pot in a cold frame, and seems impatient of much heat, from which I suspect it to be a native of high lands, and that it will ultimately prove as hardy as the well known *Berberis glumacea*, or *B. fascicularis*. To the latter it may be said to have some resemblance, but is less prickly and compact in its foliage, which is of a thinner texture with longer foot-stalks. *Stem* erect, round, pale brown, slightly striated, becoming of a deep reddish brown colour near the extremity of the shoots. *Leaves* consisting of from 2 to 4 pair of leaflets, but generally they seem to be 3-paired, ovate-acuminate, about 2½ inches long, and an inch broad, thin and rigid, of a bright shining green, excepting the margin which is a pale yellow, and furnished with moderately long, sharp, brownish spines. The leaflets themselves are almost sessile, attached to a round, wiry, deep green footstalk, varying from 6 inches to a foot in length, swelling at the base and flattened so as to embrace the stem. *Flowers* produced on a round slender raceme, 9 inches long and of a brownish red colour, bearing on its upper half a dozen or more gracefully drooping, pale, straw-coloured globular flowers, each half an inch in diameter, and suspended by a very slender pedicell, about an inch long, with two minute acuminate bracts in the middle, and another somewhat larger at the base. *Sepals* of 12 divisions, roundish concave, pale yellow, arranged in four rows alternately round the base of the ovarium,—the outer row much smaller than the rest. *Petals* considerably narrower than the sepals, more erect and of deeper colour, as well as slightly cut at the margin. *Filaments* of the same colour as the petals, and rather more than half their length, somewhat curved and flattened at the extremity so as to give the anther the appearance of being split into two distinct bodies. *Ovarium* erect, nearly round and thick in proportion to its height, with a pale green stigma. Berries (globose, apparently purple.—*J. L.*)"

For this communication, and a drawing of the plant itself, we are indebted to Mr. W. B. Booth. This species proves to be the B. pallida of Hartweg, found at La Majada, San Josè del Oro, Zacualtepan, Cardonal, and Atotonilco el Grande in the north-east of Mexico; so that we conclude the species to about as hardy as Berberis fascicularis. It is at present a plant of extreme rarity, the two specimens at Carclew and one in the Garden of the Horticultural Society being, as far as we

know, all that exist in this country. It is a valuable addition to the Ash-leaved Berberies, or Mahonias as some call them, and is by no means unlike B. tenuifolia, from which however it differs in the leaflets being spiny toothed.

THE BALSAM POPLARS.

The hardiness and beauty of many of these trees render their history of considerable interest to planters, especially as it appears that much confusion exists respecting their real names. We therefore extract from the *Gartenzeitung* the following revision of them by Dr. Fischer of St. Petersburgh.

29. POPULUS balsamifera, *L.* (in part) *and of all authors except* Pallas; *Mich. Arb. Forest., de l'Amer. sept. vol.* 2. *t.* 98. *f.* 1. *Du Ham. Arb. ed. fol. vol.* 2. *t.* 50. *Spach in Ann. de Soc. Nat. vol.* 15. *p.* 33. *Loudon Arb. Brit.* 3. *p.* 1673. (in part).

Tree large, pyramidal, quick growing, bright green, with round ash-coloured branches, thick when adult; buds swollen, abounding in balsam (resin), smelling like rhubarb.

Stipules acute, spreading, balsamiferous.

Petioles in full grown trees long, half the length of the blade of the leaf, roundish, with a complete open furrow, most shallow at its apex, on the strong young shoots much the shortest for the length of the blade.

Leaves erect, spreading, flat, variously shaped; in adult trees oblong, acuminate, generally somewhat contracted for a short distance at the base, never cordate; three or five-nerved, lateral nerves much slenderer, sometimes triple-nerved; margin crenated, crenatures flat, in the larger leaves sometimes double, in others almost obsolete, having a gland beneath the apex. Leaves otherwise smooth, coriaceous, bright green and shining above, pale green and opaque beneath; veins when old rust-coloured, coarsely reticulated; those of the strong root-shoots very much elongated, with the base ovate, sometimes slightly cordate, elongate-oblong, acuminate, nearly always somewhat triple-nerved.

N.B. This is the common North American Tacamahac Poplar, long since introduced to Europe, and remarkable for the quantity of suckers it throws up all round the stem.

30. Populus tristis, *Fisch.* P. candicans, *of some gardens, and perhaps of Willdenow.*

Tree middle sized, distorted, with a black and almost mournful aspect; branches terete, thick, dark brown; buds swollen, yielding balsam abundantly, resin smelling like rhubarb.

Stipules acute, spreading, balsamiferous.

Petioles in adult trees long, weaker and laxer than in the allied species, with an open furrow passing to their apex, where it is depressed and dilated, often equal to half the length of the blade of the leaves.

Leaves in consequence of the weakness of the petioles lax, somewhat pendulous, less flat than in the preceding, and often more or less concave and waved, ovate, generally cordate, acuminate, with the point less elongated and acute than in the preceding species, with the base at the insertion of the petiole frequently very slightly cuneate; oblong and sometimes oblong-lanceolate leaves are occasionally found mixed with the rest. Basal nerves fine; lateral ones much slenderer; margin of the leaves coarsely crenate; crenatures sometimes double, sometimes incurved, never so indistinct as in the preceding species. Leaves smooth, particularly coriaceous and strong, above shining, dark green, beneath whitish green, opaque, much reticulated, and when old rust-coloured.

Leaves of young trees, like those on the branches of adult ones, but larger, more cordate, with large crenatures.

N.B. Willdenow's description of Populus candicans answers very well to this tree. Its dark, almost black green leaves, with their loose drooping position, distinguish the plant even at a distance. No species abounds so much in balsam. It is to all appearance of American origin.

31. Populus longifolia, *Fisch.*

Trees when young elegantly pyramidal, intensely green; branches upright, spreading erectly, terete, dark brown; buds swollen, with an abundant resin, which smells of rhubarb.

Stipules spreading, acute, balsamiferous.

Petioles six times shorter than the blade of the leaf, strong, roundish, with an open furrow passing from the base to the apex.

Leaves erect, flat, oblong-lanceolate or lanceolate, gradually attenuated towards the apex which is obtuse, with the

base sometimes acute; five-nerved; primary veins of the blade remarkably incurved; margin closely crenated; crenatures glandular; above intense but bright green, beneath paler, and with fine reticulations.

Leaves on young trees lanceolate and feather-nerved.

N.B. I have met with several young trees of this in the Gorenki gardens at Moscow, where nothing was known of their origin. The beautiful pyramidal form of this plant when 18 to 20 feet high, and its very short leafstalks, are remarkable features.

32. Populus candicans, *Hort. Kew? Mich. Arb. Forest. t.* 98. *f.* 2. *Spach. l. c. p.* 33.

Tree subpyramidal, with bright green round branches, which in adult trees are stout and brown; heads swollen, abounding in resin smelling like rhubarb.

Stipules spreading, acute, balsamiferous.

Petioles of adult trees long, equal to half the length of the blade of the leaf, often longer, with a very open furrow running from the base to the apex.

Leaves spreading, flat, and slightly cordate at the base, broadly ovate or ovate-orbicular, shortly acuminate, delicately five-nerved, deeply and flatly crenated; crenatures connecting a minute gland, which is sometimes obliterated, ovate-oblong and even somewhat rhomboid leaves occur; otherwise all are coriaceous, above bright green and shining, beneath paler and opaque, with very slender reticulations hardly even when old rust-coloured.

Leaves on young trees unknown.

N.B. This tree occurs here and there planted about St. Petersburgh.

33. Populus pseudo-balsamifera, *Fisch.*

Tree large, pyramidal, bright green; branches terete, somewhat fastigiate, but also graceful in adult trees; buds slender, varnished with but a little balsam which smells slightly.

Stipules, in living specimens not seen, in dried ones apparently adpressed.

Petioles long, scarcely shorter than the blade of the leaves, roundish, slender, with an open furrow extending from the base to the apex.

Leaves spreading, flat, in adult trees ovate, or roundish ovate, shortly acuminate, sometimes slightly cordate, not rarely somewhat cuneate at the base, five-nerved, often with an additional pair of slender nerves, closely and slightly crenated; crenatures covering very minute glands; above bright green, beneath whiter, minutely reticulated.

Leaves on young trees in a less degree, but by no means shortly petiolated, ovate, oblong.

N.B. Found planted about St. Petersburgh and Moscow, and supposed to be of foreign introduction. Probably American.

34. Populus laurifolia, *Ledeb. fl. Alt. vol.* iv *.p.* 297, *&c. t.* 479. P. balsamifera, *Pall. flor. Ross. t.* 41. *fig.* 13. *Spach. l. c. p.* 33.

Tree tall, pyramidal, bright green; branches very angular, grey, in adult trees stoutish. Buds swollen, yielding a balsam smelling of storax.

Stipules erect, mucronate, balsamiferous.

Petioles at the lower end roundish, compressed towards the apex, with a very narrow furrow, short, those of the cordate leaves generally shorter, and of the oblong-lanceolate leaves larger; from half to six times shorter than the blade of the leaves.

Leaves flat, sometimes oblong, even, lanceolate-oblong, and attenuate at the base, sometimes ovate-oblong, rounded or cordate at the base, acuminate, acute, triple-nerved, often with an additional pair of nervures at the sides, closely and minutely crenated; crenatures remarkably glandular; bright green, beneath paler, not opaque, reticulated, tolerably firm. Third rib but little dilated towards the insertion of the petiole. Leaves of young trees stronger and often undulated.

N.B. A specimen brought by Mardovkin from the Altai regions had perfectly and broadly ovate leaves (almost like Hibiscus syriacus), five-nerved, coarsely crenated. It was first introduced by Ledebour from that country. It stands the hardest frost.

35. Populus suaveolens, *Fisch.* P. balsamifera, *Pall. flor. Ross. t.* 61. *principal figures and letters, &c.*

Tree with us middle sized pyramidal, in Dahuria, according to Pallas, a shrub, with a greyish green aspect; branches

round, grey, in adult trees thick. Buds somewhat swollen, abounding in balsam smelling like storax.

Stipules obtuse, adpressed, balsamiferous.

Petioles short, from one third to one-sixth the length of the blade of the leaf, flattish above with a very open furrow.

Leaves spreading-erect, extremely variable in form ; oblong, somewhat roundish-rhomboid, oval, ovate-elliptic, or ovate ; apex more or less acute ; base rounded, sometimes slightly and perfectly, at others broadly cordate ; leaves five-nerved, often seven-nerved, with the mid-rib dilated towards the setting-off of the nervures above the base; closely and minutely crenated, crenatures glandular, often double ; smooth, above opaque and green, beneath whitish green, not entirely void of brightness, reticulated.

Leaves on suckers often lanceolate, sometimes tapering to each end, feather-nerved.

N.B. The grey aspect of this species renders it impossible to mistake it ; besides which there is its strong odour of storax, especially in the spring. It inhabits the eastern part of Siberia. I do not know whether the Balsam poplar of the Kamtchadales is this or some other species. A single twig collected by Langsdorff between Ochotsk and Irkutsch has larger leaves and more slender leaf-stalks than the Davurian plant.—*Gartenzeitung, Dec.* 18, 1841.

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36. MAXILLĂRĬA acutipetălă.

Hooker in Bot. Reg. t. 3966.

M. *acutipetala ;* pseudo-bulbis oblongo-ovatis angulatis diphyllis, foliis lato-linearibus acutis, scapis radicalibus uni-bifloris, sepalis petalisque oblongis acutis patentibus subconformibus, labello oblongo trilobo centro striato basique lineis elevatis subquinque, lobis lateralibus brevibus columnam involventibus intermedio acuto reflexo. *Hooker, l. c.*

According to Sir William Hooker this species, although allied on the one hand to M. tenuifolia and on the other to M. picta, is abundantly distinct from both. It was collected in Central America by Mr. Barclay, a gardener attached to the Sulphur surveying ship, and has flowered in the Botanic Garden, Kew. It is very near M. picta. The flowers are pale orange, spotted and blotched with blood colour. The petals are smaller, but of nearly the same shape and colour as the sepals. The lip is of a paler colour below, but coloured and spotted like the other parts. The column is deep red purple.

37. LISSOCHĪLUS roseŭs.

(Dendrobium roseum, *Swartz. in Persoon synops. p.* 523.)

L. *roseus;* foliis lato-lanceolatis erectis plicatis, scapo squamis lanceolatis acutis membranaceis distantibus vaginato, racemo denso oblongo, bracteis ovatis acuminatis ovario brevioribus, sepalis spathulatis acutis concavis reflexis, petalis oblongis apiculatis, labelli trilobi lobis rotundatis intermedio emarginato cum mucrone, disco lamellis tribus undulatis serrulatis tuberculo parvo utrinque.

A very remarkable terrestrial Orchidaceous plant, imported by Sigismund Rucker, Esq. from Sierra Leone. It has large plaited leaves, and rich rose-coloured flowers in a close raceme at the end of a scape between three and four feet high. Although the other species of the genus have flowers in which yellow is the predominant colour, this has scarcely any trace of it except in the middle of the lip. We shall take an early opportunity of figuring it.

38. DENDROBĬUM Ruckĕrī.

D. *Ruckeri;* caulibus teretibus, foliis ovato-lanceolatis acuminatis planis, floribus gemellis, sepalis patulis obtusiusculis convexis margine reflexis lateralibus subtriangularibus, labelli trilobi lobis rotundatis intermedio undulato axi elevatâ villosâ.

A Manilla (?) plant, which has lately flowered with Mr. Rucker. It is sweet-scented, handsome, and distinguished by its clear yellow nankin-coloured flowers, the lip of which is a little stained with rose-colour.

39. CLOWESIA rosea.

We have lately received from the Rev. John Clowes, a most zealous cultivator of Orchidaceous plants, specimens of a Brazilian species with the habit of a Catasetum, but with a structure quite different from that of any genus yet described. Its flowers have the chin of the Maxillaridous division, but they differ entirely from all the genera belonging to it in the peculiar structure of the pollen-masses and of the petals. To these points, however, we do not now advert more particularly, because we hope soon to have the opportunity of publishing a figure of the plant. The technical characters by which it is to be recognized by Botanists are the following.

CLOWESIA. Flos subglobosus, patulus. Sepala sub-æqualia; lateralia paulò

obliqua, in mentum breve producta, basibus connatis. Petala conformia, latiora, fimbriata. Labellum concavum, carnosum, cum labello continuum nec articulatum, obsoletè trilobum, margine in fimbriam glandulosam laceram solutum, disco læve. Columna semiteres, clavata, utrinque apice obtusa cornuta ; clinandrio alto carnoso serrato. Stigma : sinus transversalis. Pollinia 2, linearia, dorso sulcata, glandulâ subrotundâ, caudiculâ membranaceâ clepsydræformi !

Sp. 1. Clowesia rosea.

The account which Mr. Clowes's gardener gives of the appearance of the plant, which I have not yet seen, is this. Pseudobulb 2½ inches long, ovate, and tapering to a point, covered with a thin brownish white sheathing ; each pseudo-bulb has two or three small dark brown bands, which entirely surround it, and are apart from each other about half an inch. Leaves three, resting on the summit, seven inches long and one inch across, lanceolate, ovate, and acuminate, at the point twisting a little on one side. Both leaves and pseudo-bulbs are in the way of Catasetum ; it was imported a few years ago from the interior of Brazil. The scape rises from the apex of the pseudo-bulb.

40. CROCUSES.

For the following enumeration of all the known species of this interesting genus the Editor is much indebted to the Hon. and Very Rev. Dr. Herbert, Dean of Manchester.

CROCORUM SYNOPSIS.

* 1. Nudi ; *i. e. scapi involucro obsoleto. (Vidi in nudis rarò involucri obsoleti rudimentum.)*

§ 1. Membranacei ; cormi tunicâ præcipuâ membranaceâ.

1. Annulatus ; *Herbert.* (Vel, si mavis ; § Annulati. 1. Biflorus. 2. Pusillus. 3. Adamicus. 4. Chrysanthus.) Flore verno ; tunicarum vaginacearum basi annulatâ persistente, foliaceâ exteriore durâ infra medium cormum affixâ, spathæ bracteâ tubatâ, perianthii fauce luteâ, stigmatibus subtruncatis.

A ; foliorum et costæ dorsalis margine ciliato, filamentis et fauce pubescentibus.

Var. 1. *Adamicus;* C. Adami, *Gay* Bull. Fer. 25. 219. Bot. Mag. 3868. Vaginis pallidis, limbo cœruleo-violaceo sepalis extus saturatè 5-7-plumeo-striatis, seminibus pallidè subpurpurascentibus. *Tauria et Iberia.* Variat limbo magis aut minùs ex subviolaceo cœrulescente.

Var. 2 *Biflorus; Miller.* Vaginis lutescentibus, limbo subalbido sepalis extus stramineis 5-striatis, foliorum margine crasso recurvo, scapo interdum (vidi) bifloro furcato.

Subvar. 1. *Princeps*. Supra 845. *passim in hortis.* In solo rufescente, circa sinum Saronicum, teste Bory, Voy. d. Mor. Specimen 5-striatum orientale, Pallas Herb. Sp. 5-striatum, minus, ex summis Cypri et Cretæ jugis. spec. Sibthorp. Perperam vernus β. Smith Pr. Fl. Gr.

Subvar. 2. *Stigmatosus, Sabine*; limbo subpurpurascente mox albescente sepalis 5-striatis, stylo elongato.

B; foliis lævibus, canaliculis dorsalibus enervibus, filamentis vix sub lente pubescentibus.

Var. 3. *Pusillus; Tenore*. Vaginis albescentibus, fol. canaliculis vix nervatis, ciliis et pube filam. fere obsoletis, styli lobis antheras superantibus.

Subvar. 1. *Tenorianus;* minimus limbo albo sepalis extus stramineis 3-striatis petala superantibus. *S. Rocco prope Neapolim.*

Subvar. 2. *Argenteus*. (C. minimus, perperam, Bot. Mag. 2994. fig. malè coloratâ. C. argenteus, Sabine, Hort. Soc. T. 7. 431.) Major limbo subpurpurascente (variat. pallidiore, sepalis extus stram. 3-stri. petala superantibus.) *Pisa; variat aliquantulum in solo Romano. Spec. ex Caucaso, Prescott.*

Subvar. 3. *Cœrulescens;* Argenteo major, limbo intus subcœruleo. *Ossolone prope Neapolim.* Variat. acutior pallidior tubo purpureo.

Subvar. 4. *Lineatus;* Jan. (C. biflorus Parkinsoni, Sabine.) Argenteo major limbo albo sepalis stram. 3-stri. *Prope Parmam; ipse non vidi.*

Subvar. 5. *Estriatus;* Herbert. (Biflorus Bot. Reg. 1987.) Limbo purpureo petalis sepala extus stram. non striata superantibus, fauce aurantiacâ, bracteâ tenuiore loratâ. Seminibus sub-badiis. Si mavis Crocus estriatus. *Prope Florentiam.*—Spec. prope Tiflim lect. Herb. Hooker?—Sp. Orientale Pallas herb.?

Subvar. 6.? *Albidus?* foliis angustis, limbo albo (in fallor in siccis, estriato) sepalis petala obtusiora styli lobis antheras superantibus. *Spec.* Pallas herb.—Ex Tauriâ Herb. Hooker. Ex Sylv. Bononiensibus, ib.

Var. pall. violacea in coll. Bucari in Corcyrâ m. Mar. et Apr. flor. *Anth. Ion.*

C. Perianthio aureo; cormi tunicis foliaceis duris circumscissis superne cuspidatis; semine, foliorum margine canaliculis et basi, ignotis.

Var. 4. *Chrysanthus;* Herbert ex sicco (nisi per se C. chrysanthus) minimus, foliis angustis, spathâ et bracteâ tubum aureum amplexis æquantibus, limbo ¾ unc. aureo, petalis obtusioribus sepala, styli lobis antheras, superantibus. *Prope Byzantium sub nomine C. aurei legit Fridwalski.* Herb. Hooker.

2. Speciosus, *Bot. Mag.* 3861. Fl. autumnali, tunicis tenuibus lineis raris parallelis superne confl. vaginacearum basi lacerè disruptâ, foliac. exter. infra med. cormum affixâ, spathâ occultâ, bracteâ æquali non tubatâ tubum amplexâ, tubi fauce supra-stamineâ barbatâ pallidè lutescente limbo cœruleo-purpureo petalis pallidioribus conspicuè venosis, fol. costâ deflexè densè ciliatâ, seminibus subangulatis obscurè subpurpureo-rufo-brunneis.

Var. 1. *Caucasicus;* ib. C. speciosus, *M. von Bieb.* non Wilson, neque Reichenbach. Cormo minore gemmâ sæpius unicâ, spathâ uniflorâ, stigmatibus patulo-multifidis, &c. Variat. stigmatibus paucifidis ex Karabagh. Variat. fortuito limbo albo. *Prope Tifflim.*

Var. 2. *Transylvanicus;* ib. (Bot. Reg. 25. 40. icone nimis rubescente.) Cormo magno plurigemmato, spathâ biflorâ, stigmatibus fasciculato-multifidis. *Ex Transylvaniâ.*

Var. 3. *Laxior;* ib. Stigmatibus laxiùs effusis. *Patriâ incertâ; Caucaso vel Tauriâ?* C. speciosus etiam montem Athonem incolere dicitur.

3. Pulchellus; *Herbert.* Ex sicco (nisi sit C. speciosus, pulchellus, var.) Fl. autumnali, cormo inter crocos minimo unigemmato unifloro tunicis tenuibus basi ferè circumscissis, spathâ occultâ bracteâ (ni fallor, tubatâ) spatham vix æquante, tubo gracili $2\frac{1}{2}$ uncias exertâ, limbo unciali cœrulescente unciali (fauce in sicco aurantiacâ) stigmatibus longis paucifidis antheras superantibus. *Prope Byzantium Montbret legit. Ex conjecturâ meâ in "forestâ de Belgrade" quæsitus, operâ benevolâ dom J. Cartwright nuperrimè inventus et effosus est, cormo unciam sub terrâ latente. Vivos nondum accepi.*

4. Tournefortianus; *Gay,* Bull. Fer. 25. 220. *Ex sicco.* Fl. autumn. cœrulescente violac. striato, tunicis tenuissimis basi demum in fibras solutis, foliaceis lævissimis supra med. affix. bracteâ loratâ, stigm. prof. multifidis. *In Cycladibus. Ipse non vidi.*

5. Sibthorpianus; *Herbert.* (nisi sit reverâ C. Tournefortiani autum. var.) Perperam C. vernus, Smith Prod.—Spec. ex summis Cretæ et Cypri jugis; Sibth. herb. Oxon. Fl. verno? c. tunicis tenuibus nitidis demum basi lacerè circumscissis, spathis 1-2 unifloribus, bracteâ latâ tubum sub æquante, limbo (subcœrulescente?) saturatius striato, stigmatibus tenuibus antheras vix aut non æquantibus. *Cormum integrum non vidi.*

Var. 1. *latifolius;* foliis mediâ parte latioribus.

Var. 2. *angustifolius;* fol. ang. linearibus; limbo minore.

§ 2. Squammati; tunicâ squammatâ.

6. Lævigatus; *Bory. V. d. Mor. cum ic.—Spec. Sibth. herb. Oxon. perperam C. vernus, Smith, ex Cretâ aut Cypro.* Fl. verno, c. tun. duris lævibus enervibus infra squammæformiter laceris, spathis sub-4 unifloribus germ. ferè exerto, spatham bracteamque tubo parum superante limbo subalbido sepalis extus purpurâ tristriatis, (fauce in sicco aurantiacâ) foliis angustis. *In insulâ Cythno (hod. Thermia) et Milonis parte occidentali juga schistosa tenet.*

§ 3. Parallelo-fibrosi; tunicarum fibris parallelis.

7. Boryanus; fl. aut. tun. lævibus foliac. exter. infra med. affixâ, germ. vaginas subæq. foliis angustis, spathâ bracteâque loratâ acutis æqualibus, tubo et fauce luteis, limbo $1\frac{1}{8}$ unc. lacteo, stigm. multifidis exasperatis antheras æq. vel. super.

Var. *Graius;* C. Boryi, Gay B. F. 25. 220. Bory. V. d. M. cum ic. Tubo semunciam exerto. *In Peloponeso in solo rufescente prope Modon et Navarino, in Monte Eno hodie Montagna Nera, Cephalonensi Oct. Nov. floridus.*

Var. *Caspius;* C. Caspius, Fischer M.S. cum spec. Lenxovan. Herb. Hooker. Tubo $2\frac{1}{4}$ uncias exerto.

8. Lagenæflorus; Bot. Mag. 3869. Fl. verno, tun. vag. int. prope basin affixâ non circumscissâ, foliac. exter. membranaceâ temere circiter medium

sæpe obliquè affixâ, fol. margine et costâ ciliatis, spathâ laxâ capsulam persistenter obvolvente bracteâ loratâ vel obsoletâ, fil. pubescentibus brevibus, antheris apice divaricatis stylum pallidum subsuperantibus; limbo circ. $1\frac{1}{4}$ unc. fauce luteâ, capsulâ oblongâ seminibus purpureo-brunneis.

Var. 1. *Aureus;* Smith P. Fl. Gr. 1. 24.—Par. Lond. γ. 106. Engl. Bot. 2646. Bot. Mag. 2986, *In Cycladibus in arenosis supra argillam.*

Subvar. 1. *Trilineatus;* striis tribus externis; fortuitus.

Subvar. 2. *Sulphurascens;* sulphureo concolore pallidior; fortuitus.

Subvar. 3. *Albus;* spathâ bracteatâ vel ebracteatâ, fortuitus.

Var. 2. *Lacteus;* pube filam. fortiore, folior. ferè obsoletâ, spathâ ebracteatâ, stylo albescente. *Nisi diversus sit, nomen Candidus prioritate valet.*

Subvar. 1. *Concolor;* Sabine Hort. S. Tr. v. 7. Mœsiacus β. Bot. Mag. 1111. Albo simillimus. *Hab. incert.* Huc forsan referendus est C. Candidus fol. lanc. lin. fl. brevioribus, stigm. antheras subæq. profundissimè multipartitis, radicum tunicâ fibroso-costatâ, corollæ lac. ellipticis. In monte Gargaro m. Maio flor. *Clarke Trav.* 1812.

Subvar. 2. *Pennicillatus;* Sabine S. T. v. 7. Bot. M. 2645. Limbo lacteo sepalis ad basim lineis 3 cœruleis. *Hab. incert.*

Subvar. 3. *Lutescens;* Bot. Mag. 3869. Limbo pallidè, fauce satur. luteis. *Hab. incert.* In agro Suffolciano apud nos inventus, ubi C. aureus fortè crescit.

Var. 3. *Sulphureus;* foliis strictis, spathâ bracteatâ, limbo sulphurascente fauce aureâ (antheris apud nos senio sterilibus) spathâ bracteatâ.

Subvar. 1. *Concolor;* Bot. Mag. 1384.

Subvar. 2. *Pallidus;* Sabine Hort. S. T. v. 7.

Subvar. 3. *Striatus;* Sepalis extus striatis. Bot. Mag. 938.

Var. 4. *Stellaris;* Haworth. Tunicâ vaginaceâ interiore parallelo-fibrosâ, proximâ tenuiter membranaceâ basi crassâ persistente, foliaceâ exter. duriore nitidâ obliquè sulcatâ supra med. affixâ. limbo aureo sepalis et tubo extus striatis, spathâ antheris foliis ut in præcedente. *Habit. incert.*

Var. 5.? *Syriacus;* tunicis pallidèbadiis nitidis vaginaceâ interiore basi lacerâ superne leviter parallelo-fibrosâ, foliaceis superne sulcatis exteriore circ. medio proximâ prope med. affixa, bracteâ loratâ, tubo purpurâ striato, limbo vix unciali aureo sepalis extus plumeo-histriatis, foliis angustis. *Spec. ex Syriâ prope Aleppo, Russell, Herb. Banks.*

Var. 6.? *Luteus;* Lam. Enc. 6. 385. Bot. Mag. 45. C. mœsiacus, Ker Consule Bot. Mag. 3869. p. 3. Habit. inc. Forsan in Hæmo, vel inter Bolim et Gherizam, vel in Cycladibus orientalibus inveniendus.

Var. 7.? *Olivieranus;* Gay Bull. de Fer. 25. 219. ex sicco. Tunicâ vaginaceâ exter. ut in aureo et luteo, foliaceis lævissimis supra medium affixis, foliorum basibus liberis, bracteâ loratâ, stigmatibus 4-6 exasperatis. *Ipse non vidi. Hab. in insulâ Chio.*

C. lagenæfloro forsan adjiciendi sunt C. flavus scriptoris anon. Anthol. Ion.

Corcyræ in collibus Cephalæ Ypso, Feb. Apr. et C. sulphureus ib. supra portum Cullura et in incultis Cato-Garunæ.

9. Campestris; *Herbert;* Bot. Mag. 3864. ad calcem. Pallas M.S. Herb. Serotinus? malè Ker in Syn. B. Mag, 1267. C. hybernus Fridwalski. Flore autumnali sero, cormo unigemmato 1 rariùs 2-floro, t. vag. int. confertim subparallelo-fibrosâ prope basin aff. foliaceis tenuiter retic. superne setosis ext. infra med. proximâ paullò supra aff. bracteâ (ni fallor) tubatâ, limbo gris. cœruleo (in sicco) sepalis majoribus, stigmatibus truncatis. *Vivum non vidi. Ni fallor in sicco, differt a Byzantino, quem neque siccum vidi, spathâ nudâ bracteatâ et tun. foliac. ext. infra medium affixâ; certè Byzantino affinis.*

§ 4. Reticulati; tunicâ præcipuâ reticulatâ.

10. Cancellatus; *Herbert.* Flore autumn. vel æstivo; c. 1-2-floro t. latè retic. demum cribrosis foliac. sup. setosis [scapo, ni fallor in siccò, nudo et spathâ bracteatâ] tubo sup. nudo flavescente, limbo purpureo ad basim striato. *Vivum non vidi.*

V. 1. *Kotschianus;* minor limbo circ. 1¼ unc. In Syriâ.

V. 2. *Naupliensis;* major limbo circ. 1¾. Oct. prope Naupliam.

11. Reticulatus; *M. v. Bieb.*—Bot. Mag. 3865. ad calcem.—Malè Susianus Bot. Mag. 652. *prope Susam non inventus.* Fl. verno: c. tun. vagin. int. depereunte, foliac. reticulatis exteriore cribrosâ prope basim aff. inferne apiculatè circumscissâ, proximâ sup. med. cæteris gradatim altiùs, fol. costâ ciliatâ, spatham bracteâ tubatâ subæq. limbi fauce et fil. lævibus, petalis inf. subfusco notatis; seminibus obscurè badiis.

Var. 1. *Reflexus;* Susianus, Bot. Mag. 652. C. fulvus, Pallas herb. Limbo aureo sepalis revolutis extus fusco-purpureo striatus aut suffusus. *Odessa; Caucasus.*

Var. 2. *Rectilimbus;* Similis, sepalis non revolutis, sed depressis. *Hab. incert.* In hortis.

Var. 3. *Immaculatus.* C. fulvus, Pallas herb.—Spec. ex Byz. herb. Hooker forsan ad Gargaricum referendum est.

Var. 4. *Variegatus;* Hornsch. et Hoppe; foliis minùs strictis, scapo elongato, germine subalbido, limbo pallidè purpurascente extus striato fauce flavescente, tubo saturatè 6-striato. *Istria, Sylva Lipiza dicta, Podolia australis intra Baltim et Jaorlik et circa Sawran Andr. Besser. Odessa, Caucasus.—Corcyra collibus Cotonychii teste Anth. Ionicâ.*

12. Gargaricus; *Herbert. Ex sicco Bot. Mag.* 3866. f. 2. C. aureus; *Clarke, Travels, &c.* 1812. *Spec. Crips et Yalden Herb. Banks. Dr. Clarke herb. Ex monte Gargaro m. Maio floridus.* Tunicâ vag. int. fibris superne cribrosè retic. inferne parallelis basi non circumscissâ, (spathâ nescio an bracteatâ) tubo aureo brevi, limbo ⅝-unc. subcitrino rariùs subaureo vel aureo petalis obtusis, sepalis acutioribus longioribus.

13. Sieberianus; Spec. Sibth. Oxon. ex summis Cretæ et Cypri jugis. Bot. Mag. 3866. f. 2. C. Sieberi, *Gay* B. F. 25. 220. 1831. C. nivalis; *Bory V. du Mor.* Fl. verno, c. tun. tenuiss. subretic.-fibrosis moll. (sec. Gay, foliac. demum cribrosis exter. prope basim aff. spathâ lati-bracteatâ tubum ferè æquante, limbi uncialis fauce (ni fallor) lævi, (purpurascente *in sicco Sibth.* aurantiaco? *ex sicco Gay.)* stylo subalbido, stigm. vix

incisis antheras superantibus. *In Troadis et Cretæ montibus, Gay. Cormum integr. non vidi. An C. vernus in Gargaro, Clarke Trav. In summo Taygeti jugo schistoso nive fusâ statim exoritur ad ped.* 6000 *alt. m. Maio floridus.*

14. Fleischerianus ; C. Fleischeri, *Gay* B. F. 25.—Spec. *ex Smyrnæ mont. herb. Hooker.* Fl. verno, c. tun. vag. crassis demum merè fibrosis fib. tenac. subtil. intertextis foliac. retic. nervatis nunquam cribrosis, exteriore med. aff. bracteâ tubatâ, stigm. multifidis, limbo albo sepalis extus striatis; 4-florus.

* 2. Involucrati ; i. e. scapo involucrato.

§ 1. Membranacei.

15. Parvulus ; *Herbert.* Fl. autumnali? cormo parvo tun. badiâ lævi bas lacerâ, (involucro, ni fallor in sicco, tubato apice brevi obtuso) spathâ tubatâ (ebracteatâ?) apice bifido, fol. angustis hysteranthiis capsulâ parvâ apiculatâ seminibus pallidè badiis apiculatis. *Flos ignotus. Ex Syriâ capsulâ ferè maturâ fol. angustis subuncialibus m. Martio receptus cum seminibus deperiit. Spec. in herb. Hooker. deposui. Si in sicco erravi, spathâ nudâ est bracteâ tubatâ, et in* § 1. §§ 1. *ante C. speciosum ponendus est.*

§ 2. Parallelo-fibrosi.

16. Pyrenæus ; *Parkinson*, Par. 1629. C. nudiflorus, pessimè, Smith E. B. 1798. f. 491. C. multifidus, Ramon B. d. Sc. Soc. Phil. 1800. C. speciosus, Wilson E. B. sup. 2. 2752. Fl. autumn. c. ex basi et zonis omnibus stolonibus elongatis aucto, tun. fol. exter. supra rariùs infra med. proximâ summo ferè cormo aff. involucro subterraneo laxo 1-2-floro, spathâ ebracteatâ elongatâ superne subvirescente, tubo spath. superante, fauce lævi limbo purpureo. *Hab. pascua Pyrenaica ad* 6000 *ped. alt. Cebennæ pascua et Aquitaniam.*

17. Asturicus ; *Herbert*, Bot. Mag. 3998. f. 2. Fl. aut. c. ut in Pyrenæo, spathâ subvirescente $\frac{7}{8}$ unc. exerto, tubo purpureo infra pallidiore spath. $1\frac{1}{4}$ unc. superante, limbo $1\frac{1}{8}$ vel $1\frac{3}{16}$ unc. purpureo lacin. (sepalis præcip.) ad basim tristriatis, petalis $\frac{2}{3}$ unc. latis barbâ ad basim densâ pallidâ, sep. $\frac{5}{16}$ unc. latis, fil. albis ori ipsi insertis $\frac{5}{16}$ unc. antheris aureis ultra $\frac{3}{8}$ unc. stylo aurant. multif. antheras non æqu. primulam leviter redolente. *In collibus Asturiæ prope "Gijon" et "Santander."* Pyrenæo omni parte minor, colore saturatiore, mense et plus serior.

§ 3. Subparalleli ; fibris parallelis confluentibus.

18. Serotinus ; *Salisb.* P. Lond. 30. 1805. Bot. Mag. 1267. non verò herb. Pallas ib. cit. neque Serotinus, Bertoloni. Fl. aut. sero, c. tunicâ vag. inter. fib. parall. superne confluentibus, foliac. ext. membranaceâ supra med. c. interioribus 3 gradatim altiùs affixis, involucro tubato apice acuto interdum bracteato, spathâ tubatâ superne viridi-nervatâ, bracteâ acutâ angustâ subæq. basi latiore tubum amplexâ, germ. subluteo, tubo exerto intùs pallidè flavescente ad lacin. basim pubescente, limbo violaceo-griseo sepalis extus striis sex pallidioribus intus maculâ ad basim subluteâ, filamentis a tergo canaliculatis. *Hab. in pinetis Gaditanis et Alpibus Eliberitanis Sierræ Nivosæ in Hispaniâ.*

19. Salzmannianus; *Bot. Mag.* 3868. f. 2. C. Salzmanni, *Gay B. F.* 25. 220. Tingitanus, *Herbert*, Bot. Mag. 3868. f. 2. Fl. autumnali, c. pyriformi, tun. vag. int. submembranaceâ demum in fibras parallelas sup. acutè confluentes solutâ, ext. basi persistentibus, foliac. lævissimis superne setosè apiculatis exter. parum vel longè infra med. proximis gradatim altiùs aff. foliorum circa 7 synanthiorum marg. crassis lævibus costâ vix nervatâ lævi canaliculis enervibus, spathâ ebracteatâ, limbo circ. $1\frac{3}{4}$ unc. fil. antheras non æquantibus, stigm. coccineis 5-6-fidis anth. æqu. *Hab. circ. Tingidem.*

20. Clusianus; *Bot. Mag.* 3868. f. 2. *Gay B. F.* 25. 220. Fl. autumnali, tunicis vag. ext. basi persistentibus, interiore . . . . ? foliac. superne retic. cancellatis inferne in fibras liberas solutis, exter. paullo inf. med. aff. spathâ ebracteatâ, per. fauce albidâ stigm. multif. *Hab. circa Olyssipem, Gay; mihi ignotus.*

21. Byzantinus; *Parkinson*, Par. 168. *Ker* Bot. Mag. 1111. p. 2. A. D. 1808. C. Banaticus, Gay B. F. 25. 220. A. D. 1831. C. speciosus, Reichenb. Iconol. Bot. Cent. 10. C. iridiflorus, Heuffel et Reichenb. Fl. autum. c. tunicâ obsc. rufesc. spathâ 1-2-florâ sepalis pallidè nigro-cœruleis ferè albicantibus (i. e. griseo-cœruleis) petala alba superantibus, stigmat. apice laceris seu plumeis, seminibus rotundis obscuris fol. 3-4 hysteranthiis; *(teste Parkinson de Byzantino)* sepalis lilacinis petalis albis minoribus lanceolatis; (*teste Reichenb. de specioso perperam dicto et prope Krassoviam, Krajova, in Banatu et Wallachiâ lecto*) tun. paucis vagin. demum in fibras lib. sol. foliac. subtil. reticulatim nervatis, foliis hysteranthiis omnibus supra med. aff. spathâ ebracteatâ, stigm. multif. perianthio violaceo; *teste Gay, qui Banaticum eundem esse cum specioso Reich. et iridifolio in literâ monet.*

22. Versicolor; *Ker* Bot. Mag. 1110. Fl. verno, tun. vag. 2 inter. infra non circumscissis fibris duris parallelis confertis ac. confluent. prope basim aff. foliac. ext. nitidâ membranac. inf. med. aff. invol. apiculato spathâ dimidio breviore, spathâ biflorâ exertâ bracteam loratam angustam æquante, per. fauce lævi, fil. lævibus $\frac{1}{8}$ unc. inf. fauc. ins. stigm. subtruncatis, foliorum canalic. nervatis, marginibus (sæpe obsoletè) subscabris, seminibus badiis.

§ 1. *Fauce flavescente.*

V. 1. *princeps; Bot. Mag.* 1110. C. insularis major; *Gay in literâ cum plantâ ipso teste ex Corsicâ, quæ v. princeps ipsissimus est; vix tamen Corsicum crediderim;* fol. canaliculis uninervibus. *Ex Gallico?*

V. 2. *Gallicus;* germine invol. superante, per. fauce lutescente, petalis extus plumeo-purpurascentibus sepalis ext. pallidè stramineis tristiatis, fol. depressis vix subscabris canaliculis binervibus. *In confiniis Galliæ et Italiæ circa Nicæam.*

Varietates cultæ C. versicoloris multæ et perpulchræ sunt, ex Gallico proculdubio natæ.

2. *Fauce pallidâ.*—C. obscurus? mihi.

V. 3. Purpurascens; (*v. lineatus, Sabine; nom. ob lineatum, Jan, mutandum*) *nisi potius C. obscurus, mihi, var. hortulanorum lineatum, plumosum, et purpureum, (Sabine) ex aliâ certè stirpe, forsan ex Dalmaticâ natos, complectitur, minores limbo magis purpurâ plumeo-suffuso spatiis inter strias subalbidis, fauce pal-*

lidâ, foliis angustioribus. Minor, c. tun. foliac. ext. intus nitidâ infra med. proximâ lævi sup. med. affixâ, tubo striato fil. albis lævibus $\frac{1}{16}$ unc. infra faucem albam lævem insertis, bracteâ spatham æquante limbo purpureo intus pallidiore petalis satur. tristriatis, sepalis saturatioribus purpurâ plumeo-suffusis intervallis inferne pallidis, fol. canaliculis enervibus costâ subbisulcatâ.

V. 4. *Dalmaticus; spec. herb. Hooker.* Caucasico similis minor foliis angustis. Fauce pallidâ?

V. 5. *Caucasicus; spec. herb. Hooker ex montibus prope Tifflim.* Tun. ext. fib. parell. sup. confluent. germino in fauce invol. biflori sito, bracteâ ut in cæteris, limbo $1\frac{3}{4}$ unc. (in sicco, purpurascente.) Fauce pallidâ?

24. Imperatonianus; Bot. Mag. 3871. p. 2. C. Imperati; Tenore. Supra, 1993. Fl. verno, c. tun. vag. int. fibris parall. superne et rariùs inf. confluent. ext. tenuibus membranac. foliac. ext. crassâ intus glabrâ ext. confertim confluenter parallelo-fibrosâ, circ. vel infra med. aff. involucro scapos infra arctè amplexo 2-floro, germ. striato, spathâ bracteæ tubatæ acuminatæ æq. p. fauce lævi saturatè luteâ, fol. canal. enervibus marg. lævi, capsulâ 6-striatâ, sem. pallidè badiis demum brunneis raphe et chalazâ rugosis.

V. 1. *Princeps;* limbo viol. sep. ext. stramineis plumeo-3-striatis. *Habitat colles siccos dumosos et sepes prope Neapolim.*

V. 2. *Rupestris;* Tenore. Idem foliis depressioribus. *Nescio an ista sit var. in monte celso Pollino inventa.*

Variat species sepalis basi tantum breviter 3-striatis, vel striâ mediâ elongatâ, vel obsoletè plumeis, vel estriatis, et limbo albo sepalis extus stramineis estriatis vel breviter ad basim striatis, vel extus subalbidis 3-striatis.

§ 4 Subreticulati; superne reticulati.

25. Suaveolens; *Bertoloni.* Bot. Mag. 3864. Fl. verno; t. fibris sup. retic. foliaceâ int. pall. inciso-notatâ sup. med. aff. spathâ semper ebracteatâ, germ. estriato, stigm. integris pallidioribus odoris: cætera 24 similis. Differt ab insulari fauce aurantio mac. et cormo. *Habit. Terracinam, montes d'Ittri, prope Fundos, et Romæ vallem d'Inferno.*

26. Insularis; nobis t. 21 hujus voluminis; germ. sup. purpureo.

27. Cambessedesianus; *Gay,* B. F. 15. 220. C. Cambessedesii. Fl. autumn. c. t. vag. basi persistentibus, foliac. int. lævissimis, exter. basi demum in fibros liberos solutâ imo cormo aff. spathâ bracteatâ, seminibus demum brunneis raphe et chalazâ pallidis. *Affinis* D. insulari minimo, *secundum Gay ex sicco. Habit. Majorcam mihi ignotus. Descriptio prorsus insufficiens.*

§ 5. Reticulati.

28. Odorus; *Zerapha* Fl. Melit. Bot. Mag. 3871. p. 3. Fl. aut. c t. vag. ad basim aff. retic. non cribrosis, foliac. nitidis vix nervatis exter. inf. med. aff. cæteris summo c. aff. germine purp. striato vel superne macul. scapo brevi involucro brevi acuminato spathâ ebracteatâ elongatâ sup. virescente acum. tubo purpurâ 6-striato vix unc. exerto, limbo unc. lilacino fauce luteâ ad petalorum basim subbarbatâ laciniis inferne 3-striatis sepalis

ext. pallidioribus, fil. infra fauc. insert. antheris pallidè flavis, stigm. truncato-dentatis odoris, foliis marginibus densè ciliatis canal. enervibus. *Hab. montem Verdalam, Melitensem.*

29. Longiflorus; *Rafinesque* Caratt. p. 84. Bot. Mag. 3871. p. 3. C. odorus, Bivo Bern. St. rar. Sic. 3. p. 8. C. serotinus, Bertoloni, Desc. Differt ab Odoro Melitensi inter alia, spathâ, magis virente subobtusâ tubo, longiore lutescente estriato, fauce saturatiùs luteâ, limbo estriato sesquiunciali, c. tun. minùs retic. *Habit. prata marit. Siciliæ, montes Panormitanos et vallis di Mazzaro, montem Stellam prope Pæstum, pascua mont. Calabriæ, Serram, Morgianam, et teste Bertoloni Dalmatiam. Si mavis,* C. odorus. Var. 1. Melitensis. Var. 2. Longiflorus.

30. Medius; *Balbi.* Bot. Mag. 3871. p. 4. Bertol. Desc. 9. Gay B. F. 1827. p. 8. et 29. Fl. aut. tun. reticu. lato-cancellatis non stolonif. spathâ ebracteatâ tubo prælongo exerto, limbo grandi violaceo stigm. prof. multifidis croceis foliis hysteranthiis. *Non vidi: semina tamen ex pratis prope Varese in Liguriâ teneo rufo-brunnea, longiflori et speciosi seminibus subsimilia. A comparatione cl. Bertoloni cum Pyrenæo involucratus esse censendus est: si nudus est, falsa est ista medietas inter Pyrenæum et longiflorum, et C. cancellatus, var. Balbisianus nuncupandus erit. Plantas seminibus nuper enatas teneo.*

31. Pallasianus. Bot. Mag. 3871. p. 4. C. Pallasii, *M. a Bieb.* sup. Fl. aut. C. Thomasiano affinis minor, tubo brevi, limbo pallidiore striato, foliis angustioribus, nescio an ciliatis. Vidi siccum c. tun. tenuiter retic. foliis 7 ferè filiformibus tubo pallido vix spatham superante, limbo unciali pallidè violaceo ad basim ext. satur. striato: de bracteis nihil novi. *Hab. colles apricos Tauriæ flor. Sept. Oct.—In Tauriâ m. Jailæ jugum inter Baidar et Aluschtam* 2800, *versus Nikitam* 3300, *montis Tschadii-Dagh.* 4240 *ped. altum est.*

32. Thomasianus; Bot Mag. 3871. p. 4. C. Thomasii, *Tenore.* Fl. aut. c. tun. superne retic. inferne parallelis, foliac. apice subsetosis, invol. ad basim scaporum bracteato, spathâ (quoad in culto vidi, ebracteatâ) in indigenis bracteatâ (Fl. Ital.) limbo sesquiunc. satur. violac. estriato petalorum basi minutè barbatâ, fil. subflavesc. $\frac{1}{8}$ inf. faucem insertis, stigm. truncatis odoris limbo dimidio brevioribus. *Hab. Calabriæ sylvas mont. La Serra et Lucaniæ La Terza, Potenza alle Faje, et Montorchio.*

Var. *princeps;* fol. marg. et costæ angulis densè ciliatis.
Var. *lævis;* foliis non ciliatis. *Flor. Ital.* Non vidi.

33. Sativus; *Linn.* Red. Lil. 173. C. autumnalis, Engl. Bot. 343. Autumnalis, Lam. Sativus, Royle. Fl. autumn. c. tun. fib. stipatis reticulatè conflu. foliac. apice setosis exter. inf. basim aff. vaginis 8-9 interiore (rarò tubatâ) basi tantùm inflatâ integrâ longit. scissâ, involucro (rarò tubato) acutè lorato scapo amplexo, bracteâ ad pedem brevi, alterâ longiore acutâ, (interdum obsoletis) spathâ tubatâ acuminatâ bracteâ loratâ æquali, germine oblongo albo, tubo exerto sup. purpureo vel purp. macul. limbo pallidè purpureo saturatiùs venoso inferne satur. striato laciniis inf. attenuatis, petal. basi minutè barbatâ, fil. ori ipsi insertis, stigm. sesquiunc. cocc. trunc. pendulis anth. longè superant. odoris fol. subundecem sesquipedalibus marg. et costâ fortiter nervatâ ciliatis canalic. enervibus. *Habitatio incerta. In Europâ non nisi in cultis inventus, apricis gaudet; apud nos non nisi post æstatem calidam floridus. Ex oriente crediderim.*

34. Vernus; Bot. Mag. 3874. p. 4. *Willd.* Fl. verno, t. vag. inter. retic. infra med. c. proximâ reticulatâ basi propiùs sed non approximatâ (unde Z. radicalis a basi distat.) foliac. exter. reticulatâ in fronte c. aff. involucro tubato scapum laxè amplexo vaginis breviore, spathâ tubatâ acutâ ebracteatâ superne virescente tubum subæq. fauce barbatâ nunquam luteâ, limbo purpureo vel albescente, stigm. capitato-multifidis croceis interdum albescentibus, fol. 3-4 medio sæpe latioribus marg. tenuibus lævibus canal. vix nervatis. *Hab. montes Galliæ merid. Helvetiæ, Italiæ, Vindeliciæ, Carinthiæ, Hungariæ Septent. et Podoliæ australis; prope Cebennas, in Pyrenæis rarior; teste Brotero Beiræ montes.*

Var. 1. *Neapolitanus;* fl. magno sepalis purpureis petalis pallidioribus plumeo-purpureis, Bot. Mag. 860. Subvar. culta; ib. 2240. *In Aprutii citer. m. Tittone et Spenta 5-6000 p. alt. Junio et Julio fl. m. Pollino Calabriæ cit.* 6000 *p. alt. Julio fl. In Lucaniæ Rivezzone* 5000.

Var. 2. *Albiflorus;* Schult. Mant. 1. 367. fol. 2-3, flore minore sæpiùs albo, rariùs pallidè subpurpurascente.

Subv. 1. *Obovatus;* lac. obovatis. *Alpes Vindel. prope Saltzburg et m. circa Tergestem.*

Subv. 2. *Acutior;* lac. acutis. *M. Carinthiæ et prope Cebennas et alibi.*

Var. 3. *Parvus;* tubo saturatè purpureo limbo unciali inferne saturatè purpureo superne albo petalis purpurâ substriatis. *Hab. jugum Splugen dictum.*

Var. 4. *Alpinus;* ex Helvetiâ fl. minore, in sicco subpurpurascente.

Var. 5. *Podolicus;* fl. majore in sicco subpurpurascente. Ex Podoliâ Merid. a Besser lectus. *Color et forma variat. in cultis fauce nunquam luteâ.*

* C. vernus; Anth. Ion. in collibus Katziari in Corcyra forsan non est C. vernus.

* C. autumnalis, Loisel. Poir. Enc. 6. 558. Montanus autumnalis, Lob. ic. 138, eodem loco cit. circa, Massiliam et alibi, nullus est. Desc. ex sativo et Pyrenæo conflata. Nescio qui sint C. autumnalis auct. anon. Anth. Ion. in collibus et aquaticis ac incultis Misostrati in Corcyrâ, fl. violaceo pallidè cœruleo-venoso et C. lineatus ib. autumnalis limbi lac. longioribus angustioribus, in iisdem locis eodem temp. flor. W. H.

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41. THE GENUS SARCOGLOTTIS.

In Presl's reliquiæ Hænkeanæ was proposed a genus of Orchidaceous plants called Sarcoglottis, which was reduced in the Genera and Species of Orchidaceous plants to a section of Spiranthes. Dr. Klotzsch having however expressed his opinion that it really is distinct, chiefly upon the ground that the pollen-masses of Spiranthes are sessile while those of Sarcoglottis are stalked, and that in Spiranthes both sepals and petals spring directly from the top of the ovary, while in Sarcoglottis the two lateral sepals are decurrent in the form of a

bag as far as the base of the ovary, we think it desirable that his views should be placed before our readers. We therefore extract the following characters of the genus and its species :—

SARCOGLOTTIS, *Presl. l. c.* Perigonii foliola exteriora lateralia majora, reflexa, labello supposita, in saccum ampullaceum antice rima solutum, ovario per totam longitudinem decurrentia, supremum cum interioribus arcte-adhærens. Labellum apice dilatatum, infra rimam anticam cum pagina interiore sacci connatum, elongato-concaviusculum, columnam amplectens, basi liberum, sagittatum. Columna brevis. Anthera dorsalis, stipitata, bilocularis. Pollinia 2, pedicellata, lineari-clavata, longitudinaliter profunde sulcata, glandulæ communi affixa.

Herbæ epigææ Americæ tropicæ; radicibus fasciculatis, crassis, cylindricis, tomentosis; foliis radicalibus, magnis, lanceolatis ; scapo vaginato; spica multiflora; floribus magnis erectis basi tortuosis. *Klotzsch in Allg. Gartenz. April* 2, 1842.

1. S. *picta ;* foliis radicalibus oblongis, acuminatis, basi attenuatis; scapo versus apicem floribusque villosis ; floribus odoratis, perigonii foliolis albis, acutis; labello revoluto, apice obtuso.

a variegata ; foliis maculatis, roseo-costatis.

Spiranthes (Sarcoglottis) picta *a* Lindley the Genera and Species of Orchidaceous plants, p. 475. Neottia picta R. Brown Hort. Kew. 5. p. 199. Sims Botanical Magazine, t. 1562.

β immaculata ; foliis saturate-viridibus unicoloribusque albido-costatis. — Both these varieties come from the West Indies.

2. S. *grandiflora ;* foliis radicalibus spathulatis, acutis, læte-viridibus ; scapo versus apicem floribusque pubescentibus ; perigonii foliolis flavido-viridibus, exterioribus inferioribusque falcatis, obtusis ; labello deflexo, tridentato.

Spiranthes picta *β* Lindley, the Genera and Species of Orchidaceous plants, p. 475. Spiranthes grandiflora, Hooker Bot. Mag. t. 2730.——Found in Brazil and in the Caraccas.

3. S. *rufescens ;* foliis radicalibus spathulatis, acutis ; scapo glabro ; floribus villosis ; perigonii foliolis angustis, sordide-albidis, dein rufescentibus, versus apicem glabris ; labello patentissimo, acuminato.

Spiranthes rufescens Fischer Hortus Petropolitanus.——Native country unknown.

The last species is S. speciosa of Presl, which Dr. Klotzsch considers distinguished by its lip being emarginate ; unless Spiranthes cerina should also belong to Sarcoglottis ; (about which we entertain no doubt if the genus Sarcoglottis is eventually adopted.)

42. THE GENUS RIBES.

We find in the *Gartenzeitung* the following useful catalogue of the species of hardy Ribes cultivated in the gardens of Germany:

1. Ribes speciosum, *Pursh.*
   Ribes speciosum, Pursh. Fl. amer. II. p. 732. Sweet Fl. gard. t. 149. Bot. Mag. t. 3530. Bot. Reg. t. 1557.—R. stamineum, Smith in Rees. Cycl.—R. fuchsioides, Berlandier.—Robsonia, Spach.——*California.*
2. Ribes Menziesii, *Pursh.*
   R. Menziesii, Pursh Fl. amer. II. p. 732.—R. ferox, Smith in Rees. Cycl.——*California.*
3. Ribes oxyacanthoides, *L.*——*North America.*
4. Ribes setosum, *Lindl.*
   R. setosum, Lindl. Bot. Reg. t. 1237.—R. oxyacanthoides, var. β. Torrey et Asa Gray Fl. amer. I. p. 546.——*North America.*
5. Ribes Cynosbati, *L.*——*North America.*——Of this there are two varieties; one with white flowers, smooth fruit, and thornless twigs; the other with greener flowers, bristly fruit, and thorns.
6. Ribes gracile, *Michx.*——*North America.*
7. Ribes rotundifolium, *Michx.*——*North America.*
8. Ribes triflorum, *Willd.*
   R. triflorum, Willd. Hort. Ber. I. t. 61. Guimpel, Otto et Hayne Holzarten, t. 3.—R. stamineum, Hornem. Enum. Hort. Havn. p. 237. ——*North America.*
9. Ribes divaricatum, *Dougl.*
   R. divaricatum, Dougl. — Lindl. Bot. Reg. 1359.——*North America.*
10. Ribes Grossularia, *L.*——*Europe.*——Of the common Gooseberry the author considers the *R. uva crispa* and *reclinatum* to be mere varieties.
11. Ribes orientale, *Poir.*——*Syria.*
12. Ribes diacantha, *L. fil.*
    R. diacantha, L. fil. Suppl. p. 157. Pall. Fl. ross. II. p. 36. t. 66.——*Dahuria.*
13. Ribes saxatile, *Pall.*
    R. saxatile, Pall. — Ledeb. icon. Fl. ross. alt. illustr. t. 339.——*Russia.*
14. Ribes lacustre, *Poir.*
    R. lacustre, Poir. Encycl. Suppl. II. p. 856. Guimpel, Otto et Hayne Holzart. t. 136.—R. echinatum, Dougl.—*North America.*
15. Ribes rubrum, *L.*——*Europe.*——The author refers here the R. *sylvestre* and *domesticum* of Wallroth.
16. Ribes petræum, *Wulfen.*——*Europe.*
17. Ribes holosericeum, *Hort. Berol.*
    R. foliis trilobis supra hirtis, subtus tomentoso-holosericeis, lobis acutiusculis serratis; petiolis pedunculisque tomentosis; racemis erectis, bracteis ovatis minutis pedicello multo brevioribus: calycibus pelviformibus glabriusculis, laciniis margine vix ciliatis; petalis spathulatis. ——Native country unknown.——The fruit is smoother than that of the currant, red, and well tasted, and is in long drooping racemes.
18. Ribes alpinum, *L.*——*Europe.*
19. Ribes multiflorum, *Kit.*——*Croatia.*——This is also called *R. vitifolium.*
20. Ribes rigens, *Michx.*——*North America.*

21. Ribes prostratum, *l'Herit.*——*North America.*
22. Ribes bullatum, *Nob.*
R. caulibus ramisque erectis; foliis palmato-quinque-lobis, supra hirtis, subtus villosiusculis, demum irregulariter bullatis, lobis triangularibus acutis subtriplicato-serratis; racemis densis erectiusculis, pedunculis pedicellisque villosis, bracteis ovatis villosis, pedicellis brevioribus; calycibus turbinatis hirtis, laciniis obovatis ciliatis; petalis obovatis. ——Native country unknown.——Flowers purplish red.
23 Ribes atropurpureum, *C. A. Meyer.*
R. atropurpureum, Ledeb. Fl. alt. I. p. 268. Icon. pl. Fl. ross. t. 231. ——*Altai.*
24. Ribes pallidum, *Nob.*
R. foliis palmato-quinquelobis utrinque parum pubescentibus, lobis subtriangularibus acutis duplicato-serratis; racemis elongatis laxiusculis pendulis; pedunculis pedicellibusque pubescentibus: bracteis pubescentibus, pedicello multo brevioribus; calycibus glabris, laciniis spathulatis ciliatis; petalis spathulatis.——Native country unknown; also called R. caucasicum. Flowers greenish, tinged with red.
25. Ribes nigrum, *L.*——*Europe.*
26. Ribes floridum, *l'Herit.*
R. floridum, l'Herit. Stirp. I. p. 4. Guimp. Otto et Hayne Holzart t. 1. —R. nigrum, β. L. —R. recurvatum, Michx. Fl. amer. I. p. 110.—R. pensylvanicum, Lam. dict. III. p. 49.——*North America.*
27. Ribes Dikuscha, *Fishcher Cat.*——Native country unknown.
28. Ribes heterotrichum, *C. A. Meyer.*
R. heterotrichum, Ledeb. Fl. alt. I. p 270. Icon. pl. Fl. ross. t. 235. ——*Altai.*
29. Ribes punctatum, *Ruiz et Pavon.*——*Chile.*
30. Ribes sanguineum, *Pursh.*
Ribes sanguineum, Pursh Fl. amer. I. p. 164. Bot. Reg. t. 1349. Bot. Mag. t. 3335.——*North America.*
31. Ribes malvaceum, *Smith.*
R. malvaceum, Smith.— DeCand. Prodr. III. p. 552.—R. sanguineum, Hook.—R. tubulosum, Eschsch.—R. tubiflorum, Meyer.—*N. America.*
32. Ribes glutinosum, *Benth.*
R. glutinosum, in Trans. of the Hort. Soc. II. Ser. I. p. 476.—R. augustum, Dougl.——*North America.*
33. Ribes aureum, *Pursh.*
R. aureum, Pursh Fl. amer. I. p. 164.—R. palmatum, Desf. Cat.—— *North America.*
34. Ribes flavum, *Colla.*
R. flavum, Colla hort. ripul. App. III. p. 4. t. 1. f. β.—R. aureum, Ker Bot. Reg. t. 125.——*North America.*
35. Ribes tenuiflorum, *Lindl.*
R. tenuiflorum, Lindl. Bot. Reg. t. 1274.——*North America.*

It appears that the following are unknown in German Gardens, viz.

Ribes niveum, Lindl. in Bot. Reg. t. 1692.—R. irriguum, Dougl. in Hort. Trans. VII. p. 516.—R. hirtellum, Michx. Fl. amer. I. p. 111.—R. aciculare, Smith in Rees Cyclop.—R. spicatum, Robson — Smith Engl. bot. t. 1290.—R. carpathicum, Kit. in Schult. Oestr. Fl. I. p. 432.—R.

albinervium, Michx. Fl. amer. I. p. 110.—R. acuminatum, Wall. Cat.—R. triste, Pallas.—R. procumbens, Pallas.—R. resinosum, Pursh Fl. amer. I. p. 163.—R. bracteosum, Dougl.—R. viscosissimum, Pursh l.c.—R. hudsonianum, Richards.—R. glaciale, Wall.—R. inebrians, Lindl. Bot. Reg. t. 1471.—R. cereum, Dougl. Lindl. Bot. Reg. t. 1263.

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43. PUYA recurvāta.

Scheidweiler in Garten Zeitung, 1842, *p.* 275.

P. caule simplici altissimo, squamoso, pulverulento; squamis herbaceis, lanceolatis acutis; foliis integerrimis, acutis, apice denticulatis, supra nitidis, subtus floccoso-pulverulentis; spica terminali; bracteis imbricatis, arcte appressis, siccis, roseis, acutis; floribus subgaleatis sessilibus, recurvatis, albis; staminibus lutescentibus corollam æquantibus; stylo triangulari; stigmatibus lobatis, post anthesin contartis.

A Brazilian plant of the Bromeliaceous order. Its flower stem is described as being 5 feet 3 inches high, covered with green lanceolate scales. The leaves are 3½ feet long and 2 inches broad, shining green above, white with cottony wool on the under side. The spike is about a foot long, covered with white sessile flowers. It has flowered in the Botanical Garden at Brussels.

44. PITCAIRNĬA undulāta.

Scheidweiler in Garten Zeitung, 1842, *p.* 275.

P. scapo erecto, simplici, squamoso, pulverulento, coccineo; squamis lanceolatis, cuspidatis, basi scariosis, apice herbaceis, integerrimis; racemis elongatis, simplicibus; pedicellis floribusque coccineis; perianthii laciniis exterioribus carnosis carinatis; bracteis lanceolatis siccis, foliis lanceolatis integerrimis, longissime cuspidatis, margine undulatis vel rugoso-undulatis, supra glaberrimis, subtus albis pulverulentis; scapum æquantibus, staminibus inclusis.

A native of Brazil, which has flowered in the Botanical Garden at Brussels. The leaves are dull green, here and there striped with yellow, and the flower stem scarlet, 2½ feet high, The spike is 10 inches long; the flowers scarlet, with bracts of the same colour.

45. CATHA paniculāta.

Scheidweiler in Garten Zeitung, 1842, *p.* 275.

C. frutex spinosus, ramis angulatis; foliis petiolatis ovato-lanceolatis serratis, utrinque attenuatis, mucronatis; ramis junioribus spinosis, spinis

patentibus diphyllis; foliolis alternis; gemmis supra axillaribus, squamis ciliatis, ramis adultis floriferis, spinosis; spinis brevioribus, axillaribus, nudis, erectis; stipulis exiguis, filiformibus, ciliatis; floribus hermaphroditis in apice ramulorum paniculatis albis, pedicellis trifloris. Folia ad siccitatem odorata.

A bush of the Celastraceous order, about 3 feet high, which has been for some years in the Botanical Garden at Brussels, but whose native country is unknown: it is supposed to have come from the East Indies. The leaves smell something like Melilot. The flowers are small, greenish white, and scentless. It seems a plant of no interest.

46. HYDROMESTUS maculatus.

Scheidweiler in Garten Zeitung, 1842, *p.* 285.

Calyx bibracteolatus, quinquepartitus; laciniis superioribus æqualibus acutis, quinta postica obtusa. Corolla hypogyna infundibuliformis, bilabiata, tubo longo; labio superiore bifido, lobis obtusis revolutis inferioris trifidi laciniis æqualibus. Spicæ bracteis arcte appressis, cucullatis, aqua limpida impletis. Stamina quatuor, æqualia, corollæ tubi inserta, exserta, barbata; antheræ uniloculares, apice et basi lanuginoso-barbatæ. Ovarium biloculare, loculis biovulatis. Stylus simplex; stigma bilabiatum, labiis inæqualibus. Capsula sessilis, tetragona, bilocularis, loculis dispermis, dissepimento incompleto, loculicide bivalvis, valvis medio septiferis. Semina discoidea rugosa retinaculis uncinatis suffulta.

H. *maculatus*; Scheidw. Suffrutex mexicanus; caule erecto glabro; foliis cruciatum oppositis, nitidis, rugosis, undulatis, luteo maculatis, coriaceis, obtusiusculis, basi acutis, petiolatis. Spica terminalis, quadrifariam imbrica; flores lutei.——Caulis 2 ped. altus; folia 8 poll. longa, 3 poll. lata; petioli pollicares; spica 4-5 poll. longa.

A small Mexican bush, belonging to the Acanthaceous order. The flowers are yellow, and like those of a Justicia. The leaves are stiff and shining. From the Botanic Garden at Brussels.

47. RHODOSTOMA gardenioides.

Scheidweiler in Garten Zeitung, 1842, *p*, 286.

Calyx tubo cylindraceo tribracteolato, cum ovario connato, limbo supero, persistente, fisso, quinquefido; laciniis æqualibus recurvis, acutis. Corolla supera, infundibuliformis, tubo longo cylindrico, intus glabro; limbi quinquelobi laciniis lanceolatis, plicatulis, reflexis, mucronatis. Stamina quinque, summo tubi inserta; filamenta brevissima. Antheræ lineares, inclusæ mediofixæ, basi sagittatæ. Ovarium inferum, biloculare, disco epigyno carnoso. Ovula in loculis solitaria. Stylus simplex, stigmata duo lineares. Fructus ———. Patria?

Rhodostoma *gardenioides*; fructiculus erectus ramosus articulatus, cortice

fusco glaberrimo; ramis oppositis, cylindricis articulatis; foliis petiolatis, oppositis, ovato-oblongis acuminatis, undulatis, utrinque glaberrimis; nervis alternis; stipulis basiliaribus, acutis, exiguis, basi junctis; floribus terminalibus cymosis, albis, ante anthesin rubellis, bracteis sub calyce et cymæ ramis carnosissimis.

A little inconspicuous bush of the Cinchonaceous order, and allied to Gardenia. It exists in the Botanic Garden at Brussels, where its origin has been lost. It seems of no other than Botanical interest.

48. AERĬDES vīrens.

A. *virens;* foliis latis obliquè retusis, racemis pendulis multifloris, sepalis petalisque obovatis obtusis, labelli cornu acuminato ascendente lobis lateralibus apice denticulatis intermedio lanceolato medio canaliculato versus apicem denticulato.

A very fine plant from Java, with sweet-scented flowers as large as those of A. odoratum, white, stained and spotted with deep lilac. Its leaves are remarkable for their bright green colour. Messrs. Loddiges have recently flowered it. Aerides odoratum, quinquevulnera, crispum, affine and virens, would form such a cluster of beautiful flowers, as it would be very difficult to match if all the vegetable kingdom were ransacked.

49. OXYLOBĬUM obovātum.

Bentham in Lindley's Sketch of Swan River, p. xii.

This pretty greenhouse shrub has been lately flowered by Messrs. Lowe and Co. of Clapton. It has the habit of Pultenæa daphnoides, but is a stiffer and broader leaved plant. Its flowers are in axillary and terminal sessile clusters, and of a bright orange yellow, stained on the keel with crimson.

50. BOSSIÆA paucifŏlia.

Bentham mss.

This, like the last, has been flowered by Messrs. Lowe and Co., from the same country. As it was exhibited the other day before the Horticultural Society, it was a pretty leafy rather spiny bush, with gay yellow and crimson blos-

soms, and if it can be kept in that state it will be a good green-house shrub. We fear, however, that it will become naked, and leafless; in which case it will only rank with such plants as Bossiæa Scolopendrium.

51. BOSSIǢA eriocārpa.

Bentham in Hugel's Enumeratio.

A little Swan River bush, lately flowered by Mr. Groom of Clapham. It has been expected to prove a plant worth cultivation, for it has a dwarf habit, and a pretty good foliage. Its flowers, however, prove to be of a dingy nankin colour, and therefore render it but little suited for ornamental purposes. It is, however, a curious thing.

52. GONGŌRĂ truncātă.

G. *truncata;* sepalis lateralibus rotundato-oblongis supremo obovato apiculato carinato, petalis minimis ovatis acutis decurrentibus quinquenerviis, labelli vernicati hypochilio medio compresso (unde bicamerato) margine lævi apice bicorni, epichilio ovato canaliculato.

A Mexican species, quite distinct from any previously described; introduced from Mexico by Mr. Rucker, who received it from Linden in 1840. The flowers are pale straw colour, with some brownish purple speckles and a yellower lip. Before expansion they are almost of the form of a bean; which is owing to their sepals being so blunt that when flattened they are nearly half oblong. The lip has no speckles at all, and looks as if varnished. It has a very peculiar scent, and is a really fine thing.

53. ACACĬĂ spectabĭlis.

Bentham in London Journal of Botany, 1. 383.

A most beautiful pinnated Acacia, with charming glaucous foliage, and erect racemes of deep yellow balls of flowers, introduced from Swan River by Messrs. Lucombe, Pince, and Co. of Exeter, and just flowered by H. B. Lott, Esq., of Tracey House, near Honiton. It is one of the very finest species in cultivation.

54. EPIDENDRUM arbuscŭla.

Lindley in Benth. Plant. Hartweg. p. 93.

For some years there has been in our gardens, to which it has been introduced by the Horticultural Society from Mexico, a singular Orchidaceous plant, with a large branching stem, leathery leaves three or four inches long, and many pale stout roots, and no one could tell what it was. It has now flowered with the Society, and proves to be the Epidendrum arbuscula, a species discovered by Mr. Hartweg, flowering in April, near a place called San Juan Sacatepequez. It is more curious than beautiful, resembling E. nutans in some respects, and quite destitute of brilliant colours. The flowers are a dull chocolate, only relieved by a patch of yellow in the middle of the labellum. The latter organ is so folded back at the sides and front, that although it is really almost circular, it has altogether the form of an old fashioned three-cocked hat.

55. CEANŌTHUS divaricātus.

Nuttall in Torrey and Gray's Flora, vol. 1. p. 266.

Under this name we are able to announce the introduction of another beautiful hardy shrub. It is described as a straggling bush, in California becoming spiny, and loaded with clusters of blue flowers. As yet it has not flowered, but the young plants have beautiful deep green glossy leaves, and it may be anticipated that in a country so much damper than California, as England is, it will preserve that verdure, which now makes it so very attractive. The plant has been raised by the Horticultural Society, from seeds presented by R. B. Hinds, Esq., late Surgeon of H. M.'s ship the Sulphur, by whom it was found in California in great abundance, and forming a most conspicuous object.

56. ERIA floribunda.

Lindl. in Wall. Cat. no. 7408.

E. *floribunda* (Tonsæ); caulibus carnosis subflexuosis teretibus, foliis lanceolatis acuminatis, racemis oppositifoliis patulis multifloris pubescentibus foliis brevioribus, bracteis defloratis ovatis concavis retrorsis, sepalis petalis 3-plò latioribus, labello angusto nudo basi saccato: laciniis lateralibus ascendentibus abbreviatis intermediâ cuneatâ tridentatâ.

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A caulescent species, with lanceolate leaves seven or eight inches long. The flowers are small, pink, smooth, in close spreading racemes much shorter than the leaves. The column is dark purple at the top. Mr. Prince originally found it at Sincapore, and communicated it to Dr. Wallich. Messrs. Loddiges, have since received it from the same place through Mr. Cuming. It is a pretty plant, worth cultivation.

57. PITCAIRNIA micrāntha.

P. *micrantha;* foliis ensiformibus acuminatis basi extùs pubescentibus, racemo tenui paniculato, floribus minutis, petalis basi nudis lanceolatis acutis.

"This singular little species was found among some Orchidaceous plants imported from Rio, in December, 1841, by Lieut. Christopher Smith, of H. M. Packet "Star," and presented to Sir Charles Lemon, Bart. M.P. It flowered at Carclew in March, 1843, and proves to be very distinct from any other of the genus to which it belongs, as well as the smallest that has yet come under my notice. It requires the constant heat of a damp stove; and thrives very well either in loose vegetable matter, or on the decayed branch of a tree.

"*Leaves* numerous, flat, undulated at the margin, flaccid, spreading and recurved, linear-lanceolate acute, from nine inches to a foot long, and about an inch wide; of a deep green above, and a pale glaucous green beneath, without any spines at the edges. *Scape* erect, nine inches long, issuing from the centre of the plant, of a brownish green, remarkably slender, round and downy, with several linear bracts along the stem, which is half its length, covered with flowers. *Flowers* white, not exceeding a quarter of an inch across, drooping and opening one or two at a time in succession, from the base upward. *Pedicel* round, very short, almost concealed by a brown-coloured acuminate bract to each. *Sepals* three, of a pale green, ovate acuminate, alternate with the petals, and about half their length. *Petals* three, recurved, lanceolate acute. *Filaments* half as long as the petals, very slender, bearing long yellow anthers, which roll up and appear as if they were round when the flower has been some time expanded. *Ovarium* about the length of the sepals, deep green, roundish oblong, crowned by the style, which is round and slender, and a little shorter than the petals."—*Wm. B. Booth.*

58. HARTWEGĬĂ purpurĕă; *var.* angustifolia.

"This plant was gathered in Guatemala by George Ure Skinner, Esq. and added to Sir Charles Lemon's collection at Carclew in August, 1841. Although very distinct from the original form of this species in its leaves and flowers, yet the general habit and appearance of the two plants are so very similar, that the present one can only be regarded as a well-defined variety of the other. Its *leaves* are from three to four inches long, and from half an inch to an inch in breadth, oblong lanceolate acute, very thick and fleshy, hollowed along the middle, and tapering to both ends; of a brownish green colour, singularly marked with numerous deep brown irregularly formed spots. The *scape* is erect, about a foot long, round and wiry, with many joints, each of which is surrounded by a pale brown-coloured bract, which closely embraces the stem, and covers it half way between the joints. The *flowers* are terminal, of the same bright pinkish colour as those of the old variety; from which, however, they differ in the form and size of the sepals, which are not obliquely cordate, but ovate oblong, and rather smaller than in the other. The *labellum* is also very different, being much larger in every respect, and having a notch at the point; whereas in the original species it is small, roundish, cordate, and forms a kind of spur where it joins the column. In this variety there is no appearance of a spur, but it is narrowed round the column, and has a singular indentation just opposite its point. The *column* is curved, and about the same length as the sepals and petals. It is also of a deeper pink, and is rounded on the upper side; beneath it is two-edged, from being slightly hollowed out along the middle. The *anther case* is somewhat reniform, brownish pink, much darker than any other part of the flower."—*Wm. B. Booth.*

59. HYMENOCALLIS Skinneriānă.

H. *Skinneriana*; "bulbo modico, foliis petiolatis fortiter costatis laminâ dilutè viridi lacunosâ acutâ pedali 5 unc. latâ, scapo $4\frac{1}{2}$ unc., spathâ sesquiunciali sex-florâ, germine sessili, tubo erecto $2\frac{1}{2}$unc. gracili limbo albo triunciali, coronâ infra angustâ unciali dentatâ, filamentis $1\frac{1}{8}$ unc. liberis, antheris semuncialibus stylo $\frac{3}{4}$ unc. brevioribus. W. H.

"These bulbs, from the exact resemblance of their foliage,

were mistaken for Callipsyche eucrosioides, till they flowered in the stove at Spofforth in March. Mr. Skinner found them in a part of Guatemala little visited."

For the above I am indebted to the Hon. and Very Rev. the Dean of Manchester.

60. EPIDENDRUM lamellātūm.

Westcott mss.

E. *lamellatum ;* (§ Euepidendrum) caule erecto articulato ; foliis lanceolatis emarginatis glabris subcarnosis, corymbo sessili paucifloro, sepalis lanceolatis acutis, petalis obovato-lanceolatis, columnâ apice alatâ, labello obovato integerrimo vel obscurè emarginato basi lamellato.

"Stem about a foot high, articulated, and much resembling that of Dendrobium. The sepals and the petals are of a delicate pink colour. The column is very short, not more than two lines long, and having appendages at the apex as long as the column. The labellum is united to the column the whole length, and is entirely undivided or very slightly notched at the end. The appendages at the apex of the column are of a darker pink colour, and the labellum is still darker and more brilliant, having the disc covered with a row of scaly yellowish plates."

For the above memorandum we are indebted to Mr. Westcott, who first named the plant in Mr. Barker's collection, where its origin was unknown. It has been subsequently communicated by Sir Charles Lemon, to whom it had been sent from Honduras. It is a pretty species, with flowers about the size of E. Schomburgkii.

61. GLADIŎLUS splendens. *W. H.*

G. *splendens* (Anisanthus splendens, Sweet B. F. G.) ; labio inferiore quàm maximè abbreviato viridi laciniis lateralibus interdum in eodem caule elongatis pallidè stramineis, labii superioris lateralibus interdum (altero vel duobus) elongatis, summo breviore, cætera G. Cunonio prorsus similis colore multo minùs splendente.—*W. H.*

Mr. Plant's "Mule Anisanth," figured in this work at fol. 53 (1842), calls attention to this, which was its female parent. G. Cunonius, and splendens, and Plant's hybrid from the latter by pollen of a mule Gladiolus between G. tristis and Cardinalis, being all three in flower together at

Spofforth, a favorable opportunity occurs for examining them. There is no visible difference between the plants of the two former, excepting that the flower of Cunonius has the tube yellow, the lower lip diminished, and yellow tipt with red, the rest of the flower scarlet, the upper segment being concave and prolonged, the laterals compressed; splendens has the like form, the tube and lower lip dull green, the lower edge of the upper laterals pale straw-colour, which is yellow in Cunonius. On the same stem, in one flower, the two lower laterals are prolonged 5-8ths of an inch, of a pale straw-colour, the two upper laterals also prolonged, and the upper segment shortened to their usual length. Another flower has one of the upper laterals prolonged to the length of the upper segment and entirely red, and one of the lower laterals prolonged 3-16ths of an inch and straw-coloured with a little red. Plant's mule has the upper segment scarlet, a little speckled, largest, and concave; upper laterals similar, expanding, and sub-concave; lower lip 7-8ths of an inch shorter, sub-erect, and conniving, pale straw-colour marked within with red having a straw-coloured middle stripe. The expansion of the upper lip and the foliage shew that it was bred as Mr. Plant asserts. G. abbreviatus, Bot. Rep. 166, or quadrangularis Bot. Mag. 567, (Anthol. quadrang. *Burm. fl. C.* genus Petamenes, *Sal.*) has the upper segment large and concave, all the rest abbreviated. All the three natural sorts have the usual seed of the Cape Gladioli with foliaceous margins. I have had many instances of seedlings amongst the mixed produce from Cardinalis, blandus, and tristis, with the lower lip abbreviated, sometimes only during an unfavourable season. Cunonius and splendens which are closely akin, and scarcely separable, are both stoloniferous, quadrangularis is not, the latter having precisely the singular leaf of G. tristis with four angles, the midrib being like the blade of the leaf. It is evident that the genera Anisanthus and Petamenes cannot be supported, their distinctions depending upon features which are variable.—*W. H.*

62. PLEUROTHALLIS peduncularis.

P. *peduncularis* (§ aggregatæ pubescentes); folio elongato lanceolato plano basi et apice carinato, floribus aggregatis, pedicellis calycibus duplo longioribus, bractea et sepalorum basi pubescentibus, sepalis acuminatis liberis, petalis ovatis setaceis sepalis brevioribus, labello ovato bicarinato juxta apicem lineari-cuneato.

Imported from Rio Janeiro by Messrs Loddiges. It has the habit of Pleurothallis ruscifolia, but is a much larger plant. The flowers are pale straw-colour.

63. BIFRENĀRĬA inodōra.

B. *inodora;* pseudobulbis tetragonis, folio oblongo acuto plicato margine crispo basi in petiolum brevem canaliculatum angustato, pedunculis unifloris pseudobulbis brevioribus, sepalis oblongis obtusis cornu elongato clavato, petalis subconformibus paulò undulatis, labelli trilobi cucullati lobis rotundatis undulatis subdentatis intermedio piloso, callo disci cuneato carnoso emarginato.

"This plant was imported from Rio in 1839, and added to Sir Charles Lemon's collection at Carclew, where it flowered in April, 1843. In habit and general appearance it approaches so near to Maxillaria tetragona, as to have been mistaken for it, but on flowering it proved to be widely different from that species, and much handsomer, although the flowers are destitute of that peculiar fragrance which *M. tetragona* is said to possess. It requires similar treatment, and flourishes in a warm, moist stove, potted in a mixture of rotten wood and other decayed vegetable substances.

"*Pseudo-bulbs* of a dull brownish green, ovate-oblong, four-angled, a good deal hollowed between them, upwards of three inches long, and nearly the same in circumference at the base, from which they taper to the point, where there is a black coloured band, indicating the joint at which the leaf is united to the pseudo-bulb. *Leaves* solitary, oblong-lanceolate acute, on short foot-stalks, spreading and recurved, measuring when full grown a foot in length, and four inches across. They are thin and rigid, of a pale green below, rich deep green above, slightly undulated, or crimped, at the margin, with a prominent vein on either side of the midrib. *Flowers* large and spreading, of a brownish green, with a hairy, red labellum. *Scape* radical, very short, sacrcely half the length of the pseudo-bulb, round and of a pale green, bearing two and sometimes three flowers. *Pedicels* about two inches long, slightly curved, and similar in size and colour to the scape, with a brown-coloured acuminate bract at the base of each. *Sepals* of a dull green, slightly tinged with red. The two lateral ones are roundish oblong, a little recurved at the point, upwards of two inches long, and an inch wide, and ending at the base in a kind of spur, half the length of the pedicel.

The upper sepal is about the same size as the other, but is more concave and pointed. *Petals* oblique, ovate-acuminate, of the same colour, but rather shorter than the sepals, and about three-fourths of an inch wide, having their edges slightly undulated and the point recurved. *Labellum* three-lobed, outwardly of purplish-red colour, but inwardly more pale and delicate towards the base, where it tapers and forms a sort of pouch. The two lateral lobes are erect and of a pale brownish-red, marked with dark coloured veins. The middle lobe is roundish oblong, recurved and undulated at the margin. Outside it is smooth, but the inner surface is thickly covered with pale soft hairs. In the centre of the lip is an elevated process. similar to those in the flowers of *M. aromatica*, *cruenta*, *tetragona*, and other allied species. *Column* about half the length of the labellum, slightly curved, of a pale yellowish colour above where it was rounded, and slightly tinged with red below, where it is hollowed out so as to appear two-edged. *Anther-case* large and fleshy, one-celled, containing two collateral pollen-masses, each of which easily splits into two roundish ovate, slightly pointed waxy bodies of a dull yellow."—*W. B. Booth.*

For this memorandum, a drawing, and specimens of the highly curious plant, I am obliged to Mr. Booth, Sir Charles Lemon's intelligent gardener. The species is much the finest yet known, its flowers being as large as those of Maxillaria Harrisoniæ.

The Maxillaria tetragona above referred to, as resembling this in habit, belongs to the genus Lycaste, in my recent enumeration of whose species, it was unsettled. I therefore avail myself of the present opportunity of adding its amended character.

64. LYCASTE tetragōna.

L. *tetragona* (Maxillaria tetragona, *Lindl. in Bot. Reg. t.* 1428. *Hooker Bot. Mag. t.* 3146); pseudobulbis ovatis tetragonis, foliis oblongo-lanceolatis plicatis basi in petiolum angustatis solitariis, scapis 1-4-floris pseudobulbis brevioribus, sepalis petalisque oblongo-ovatis obtusiusculis patulis subæqualibus, labello carnoso ventricoso trilobo erecto: lobis lateralibus parvis acutis intermedio ovato extùs convexo, disci appendice carnoso tabulari incumbente.—— *Brazil.* ——Very sweet-scented. Flowers greenish, streaked with crimson. Lip white and purple in one variety, and green and purple in another. The appendage of the disk is very conspicuous, and shovel-shaped.

65. COLAX.

Several years ago I proposed the establishment, under this name, of a genus which eventually proved the same as Maxillaria; and which was therefore abandoned. I would now propose to apply it to a small set of plants of the Maxillaridous division of Vandeæ, at present included in the genus Maxillaria itself. These species, consisting of my M. viridis and jugosa, and the M. placanthera of Sir W. Hooker, have the closed, scarcely ringent, flower of Promenæa and Warrea, but they have a caudicula quite unlike any thing at present known among their race. It has no distinct gland, but consists entirely of a thin wavy membrane, strengthened by an elevated line in the middle, and gradually narrowing to the point, where the gland is usually found. It has also a thick fleshy crested anther, whose cells are planted on its lower side. I cannot but regard these circumstances as sufficient to justify the separation of the plants in which they are found as a distinct genus. The following characters will indicate the limits of the genus and its species.

COLAX. Flores subglobosi, vix ringentes, in mentum breve producti. Sepala et petala subæqualia. Labellum unguiculatum, trilobum, inappendiculatum, planiusculum (vix cucullatum). Columna paulò elongata semiteres, clinandrio marginato. Anthera carnosa, cristata. Pollinia 4, in paribus globosis colligata, caudiculæ obovatæ membranaceæ adnata; glandulâ nulla; rostello fisso.——Herbæ pseudobulbosæ; folia terminalia et radicalia, plicata. Pedunculi radicales, erecti, uniflori, vaginati. Flores virescentes.

1. C. *viridis* (Maxillaria viridis, *Lindl. in Bot. Reg. t.* 1510.); sepalis petalisque conniventibus oblongo-subrotundis obtusis subæqualibus, labelli brevis trilobi lobo medio transversè rhomboideo unguiculato plano.—— *Brazil.*——Flowers green, with a dingy violet lip. That it differs from *C. placanthera,* in the manner stated under that species, I know from having preserved the specimen from which the figure in the Botanical Register was taken; which figure well represents the peculiar rounded form of the sepals. I believe it is no longer in our gardens; for *C. placanthera* is usually cultivated under its name.

2. C. *placanthera* (Maxillaria placanthera, *Hooker in Bot. Mag. t.* 3173. *Lindl. in Bot. Reg.* 1841. *misc.* 103.); sepalis lineari-oblongis obtusis intus secus medium seriatim maculatis, petalis angustioribus omninò conformibus maculatis, labelli angusti trilobi minutè pubescentis lævis laciniis lateralibus acutis nanis intermediâ dilatatâ rotundatâ cuneatâ, columnâ apice lobatâ versus basin bisulcâ pubescente.——*Brazil.*——

I was certainly wrong in referring this plant to *C. viridis*, from which it differs in its sepals and petals being much narrower, the flowers less green, the lip larger, and of a different form in its upper lobe.

3. C. *jugosus* (Maxillaria jugosa, *Lindl. in Bot. Reg.* 1841. *misc.* 104.); sepalis oblongis incurvis obtusis, petalis conformibus concavis basi angustatis, labelli sigmoidei oblongi unguiculati pilosi jugosi lobis lateralibus nanis obtusis, intermedio semi-circulari, columnâ apice lobatâ bisulcâ villosissimâ.——*Brazil.*——Near C. placanthera, from which it differs in having the flower of a globose figure, with much less linear sepals and concave oblong petals narrowed to the base. These parts are of a rich cream colour, speckled with crimson. The lip has quite a different form, being semicircular at the tip, deeply furrowed and closely covered with short hair. The column has two deep furrows in front almost buried in hairs.

66. CEREUS biformis.

C. *biformis;* ramis alatis articulatis crenatis, sterilibus oblongis sessilibus, floridis lanceolatis basi teretibus, petalis linearibus acutissimis, stigmate 5-lobo.

A curious and very pretty plant from Honduras, communicated by Sir Charles Lemon. It has bright rose-coloured flowers, not unlike those of Cereus flagelliformis. I hope soon to be able to figure it, with a full description by Mr. Booth.

67. BIFRENARIA.

This genus differs from Maxillaria proper in having its pollen-masses attached to a short gland, by a pair of distinct straps, or caudiculæ, instead of one; a character, minute indeed, but constant and readily detected, although often overlooked. On that account several species have been referred to Maxillaria, as I have now ascertained, and it is not improbable that others may still lie unknown among that large and troublesome genus. The following are characters of all of which I possess any certain information.

Bifrenaria, Lindl. Sepala patula, libera, subæqualia; lateralia cum basi productâ columnæ connata. Petala sepalis duplò minora. Labellum cum pede columnæ articulatum, cucullatum, trilobum, medio callosum. Columna brevis, semiteres. Anthera subcristata. Pollinia 4, per paria incumbentia, caudiculis duabus distinctis, glandulâ oblongâ. ——Herbæ epiphytæ, pseudobulbosæ. Folia terminalia subsolitaria, plicata, cartilaginea. Pedunculi radicales, uniflori v. racemosi, sæpe elongati.

1. B. *atropurpurea* (*L. no.* 1. Maxillaria atropurpurea, *Lodd. Bot. Cab. t.* 1877.) ; pseudobulbis ovatis obtusis tetragonis foliis oblongo-lanceolatis plicatis solitariis, racemis radicalibus 3-floris pseudobulbis paulò longioribus, labelli lobis lateralibus brevibus divergentibus, intermedio transverso sub-3-lobo revoluto suberoso ; callo in medio anticè tridentato. ——*Brazil.*——Flowers dark purple, very sweet-scented.

2. B. *inodora* (*Lindl. in Bot. Reg.* 1843. *misc.* 63.) ; pseudobulbis tetragonis, folio oblongo acuto plicato margine crispo basi in petiolum brevem canaliculatum angustato, pedunculis unifloris pseudobulbis brevioribus, sepalis oblongo-obtusis, cornu elongato clavato, petalis subconformibus paulò undulatis, labelli trilobi cucullati lobis rotundatis undulatis subdentatis intermedio piloso, callo disci cuneato carnoso emarginato.——*Brazil.*——Flowers as large as those of Maxillaria Harrisoniæ, green, with a bright violet lip.

3. B. *racemosa* (Maxillaria racemosa, *Hooker in Bot. Mag. t.* 2789. *Lodd. Bot. Cab. t.* 1318.) ; pseudobulbis ovatis compressis tetragonis monophyllis, foliis oblongo-lanceolatis tricostatis scapis gracilibus strictis multifloris brevioribus, sepalis oblongis acutis ; lateralibus basi valdè elongatis, petalis linearibus spatulatis triplò minoribus, labello oblongo cucullato indiviso undulato emarginato in axi calloso, columnâ pubescente.——*Brazil.*——Flowers pale, dirty straw-colour, with a white lip, slightly speckled with pale crimson. It is well figured in the Botanical Cabinet ; the representation in the Botanical Magazine appears to have been taken from a withered specimen.

4. B. *aureo-fulva* (Maxillaria aureo-fulva, *Knowles and Westcott Floral Cab. t.* 83. *Hooker Bot. Mag. t.* 3629. M. stenopetala, *Knowles & Westcott*, 2. *p.* 112.?); pseudobulbis rotundato-ovatis angulatis rugosis monophyllis, foliis oblongo-lanceolatis costatis acutis scapo radicali multifloro brevioribus, floribus longè pedicellatis, sepalis lanceolatis acuminatis lateralibus apice reflexis, petalis striatis lineari-lanceolatis acuminatis, labello unguiculato trilobo in medio striato : lobis lateralibus acutis intermedio lanceolato acuminato.——*Brazil.*——Very pretty. Flowers orange-coloured. It is the "Epidendre Limodore" of Descourtilz, and was found by that traveller in great abundance upon fallen trees encumbering the sandy plain through which the great public road passes from Bananal to Ilha Grande.

5. B. *vitellina* (Maxillaria vitellina, *Lindl. in Bot. Reg.* 1838. *misc.* 116. 1839, *t.* 12. M. barbata, *Westcott in Phytologist, p.* 7.) ; pseudobulbis ovatis obtusè angulatis monophyllis, foliis lanceolatis in petiolum canaliculatum angustatis, racemo cernuo foliorum longitudine, labelli cuneati trilobi lobis lateralibus acutis anticè crenulatis intermedio bilobo rotundato cordato crenulato, tuberculo disci trilobo obtusissimo, ungue pubescente.——*Brazil.*——Flowers bright yellow, with a purple spot in the middle of the labellum.

6. B. *aurantiaca* (*Lindl. in Bot. Reg.* 1836, *t.* 1875.) ; pseudobulbis subrotundis compressis diphyllis, foliis oblongis plicatis racemi erecti longitudine, sepalo dorsali fornicato lateralibus oblongis acutis, petalis linearibus, labelli unguiculati lobis lateralibus semicordatis intermedio majore transverso ovali subcrenulato basi bicalloso, columnâ pubescente.——*Demerara.*——Pseudobulbs and leaves beneath spotted with crimson. Flowers orange-yellow, spotted with crimson.

68. STENOCORYNE.

With respect to the Bifrenaria (?) longicornis, formerly described in this work, it must be regarded as still another genus, agreeing with Bifrenaria in having two straps (caudiculæ) to its pollen-masses, but differing in having two distinct glands also, as is the case with a part of the plants now referred to Angræcum. For this I would propose the name of Stenocoryne.

STENOCORYNE. Flores ringentes, clausi, longè cornuti. Sepala basi longissimè producta, et connata. Petala conformia. Labellum longissimè unguiculatum, trilobum, disco callosum. Pollinia 4, per paria connata. inæqualia, semiglobosa; caudiculis 2, glandulisque totidem ovalibus. ——Herbæ epiphytæ pseudobulbosæ. Folia cartilaginea, solitaria. Flores racemosi, radicales.

1. S. *longicornis* (Bifrenaria longicornis, *Lindl. in Bot. Reg.* 1838, *misc.* 177.); pseudobulbis elongatis tetragonis, foliis oblongo-lanceolatis subplicatis nitidis, racemo laxo multifloro, sepalis lateralibus ovatis acutis, petalis ovatis acutis, labello longè unguiculato spathulato apice trilobo laciniis rotundatis medio pubescente disco elevato calloso.——*Demerara.* ——Flowers racemose, orange, spotted with brown.

69. LANTANA.

In the Gartenzeitung for Oct. 1, 1842, is the following useful enumeration of the species of this pretty genus, actually in cultivation in the gardens of Germany. The authors are Messrs. Otto and Dietrich.

A. Prickly Species

a. *Flowers white.*

1. Lantana alba, *Vent.*

b. *Flowers lilac.*

2. L. mutabilis, *Lippold.* Not the L. nivea mutabilis of the Bot. Magazine.
3. L. multiflora, *Hort.*
4. L. variegata, *Nov. spec.*
   L. ramis aculeatis; foliis oppositis, ovatis, acutis, crenatis, supra scabris, subtus villosulis; capitulis hemisphæricis; pedunculis folio subbrevioribus; bracteis oblongo-spathulatis, ciliatis, corollæ tubo brevioribus.——Native of *Brazil;* forming a bush several feet high.
5. L. amethystina, *Hort. Berol.*
6. L. mista, *L.* This is probably the L. nivea mutabilis of the Bot. Mag.

c. *Flowers orange-yellow.*

7. L. aculeata, *L.*
8. L. scabrida, *Ait.*

9. L. crocea, *Jacq.*
10. L. Camara, *L.*
11. L. crenulata, *O. et Dietr.*

B. Smooth Species.

a. *Flowers orange-yellow.*

12. L. Moritziana, *O. et Dietr.*
13. L. glutinosa, *Pöppig.*
   L. glutinoso-villosa; ramis inermibus; foliis oppositis, ovatis, acuminatis, basi subcordatis, crenatis, scabriusculis; capitulis subumbellaribus; pedunculis folio brevioribus; bracteis lanceolatis tubum corollæ subæquantibus.——A native of *Peru*. It grows 2-3 feet high.

b. *Flowers lilac-yellow.*

14. L. involucrata, *L.*
15. L. incana, *O. et Dietr.*

c. *Flowers lilac.*

16. L. lilacina, *Desfont.*
17. L. Sellowiana, *Lk. et O.*
18. L. Radula, *Swartz.*
19. L. trifolia, *L.*
20. L. salviæfolia, *Jacq.*

d. *Flowers white.*

21. L. recta, *Ait.*
22. L. teucriifolia, *O. et Dietr.*
23. L. lamiifolia, *O. et Dietr.*
24. L. Geroldiana, *O. et Dietr.*
25. L. alba, *Miller.*
26. L. brasiliensis, *Lk.*

e. *Doubtful Species.*

27. L. cinerea, *Lam.* Has not yet flowered.
28. L. lavandulacea, *W.* Is lost from the gardens, and is probably a Lippia or Zapania.
29. L. viburnoides, *Vahl.* Lost out of cultivation.
30. L. abyssinica, *O. et Dietr.* This is the Lippia Schimperi of Hochstetter.
31. L. annua, *L.* Seems to be a Lippia.

70. DENDROBĬUM planibulbe.

D. (Onychium) *planibulbe;* caule compresso distichè folioso erecto basi ovali complanato, foliis oblongis obtusis emarginatis, pedunculo vaginato aphyllo, floribus terminalibus e paleis glumaceis erumpentibus, sepalis petalisque acuminatis, labelli trilobi lobis lateralibus dilatato-rotundatis intermedio lineari pectinato basi appendice emarginatâ aucto.

A singular plant, found in Manilla by Mr. Cuming, and by him sent to Messrs. Loddiges, who have just succeeded in

flowering it. The stems are about three inches high, flattened at the base into an oblong thin-edged pseudobulb. The leaves are a dull greenish-red. The flowers small white, veined with purple, placed at the very extremity of a leafless peduncle. It is very near D. Blumei.

71. EPIDENDRUM Ovŭlum.

E. (Encyclium) *Ovulum;* pseudobulbis oviformibus diphyllis, foliis linearibus canaliculatis acutis, scapo filiformi foliis paulò longiore 3-floro, sepalis linearibus 3-veniis, petalis angustioribus spathulatis, labelli trilobi lobis lateralibus acutis intermedio dilatato rotundato venis radiantibus glandulosis variegato, columnæ tridentatæ dentibus lateralibus rotundatis denticulatis.

A curious little plant, in the way of E. Pastoris, or bractescens, or aciculare, from Bolanos, for which we are indebted to Messrs. Loddiges. The sepals and petals are olive-green; the lip white, with crimson glandular radiating veins.

72. ERIA multiflōra.

Lindl. Gen. and Sp. Orch. p. 68.

E. *multiflora* (Tonsæ); caulibus teretibus clavatis 2-3-phyllis, foliis lineari-lanceolatis canaliculatis, spicis multifloris, bracteis minimis sphacelatis, floribus pubescentibus, labello cuneato-obovato indiviso basi excavato nectarifluo supra foveam dentibus 2 membranaceis erectis aucto.

A rare little plant, for which we are indebted to Mr. Van Houtte, of Ghent, who received it from Java. It has small white flowers, covered externally with fine down. The only coloured part is the column, which is deep violet. In habit it resembles a small specimen of Eria floribunda.

73. HABROTHĂMNUS fasciculātus.

Benth. in Plant. Hartweg. p. 49.

This most beautiful greenhouse plant is in the possession of M. Van Houtte, of Ghent, to whom we are indebted for specimens. It forms a bush five or six feet high, with broad ovate-oblong leaves, and heads of crimson flowers about the size of those of Burchellia capensis or larger. These heads are arranged in a panicle so as to render the branches a complete mass of blossom. A specimen before us has the flowering part ten inches long and six inches in diameter. It is from Mexico, and will soon be figured in this work.

74. DENDROCHĪLUM latifolium.

D *latifolium;* foliis oblongo-lanceolatis coriaceis trinerviis, pedunculis elongatis apice longè spicatis, labelli lævis lobis basalibus lineari lanceolatis acuminatis ciliatis, laciniis columnâ dentatâ brevioribus setaceis e basi ortis.

A plant with the habit of Dendrochilum glumaceum, but with much broader leaves and quite a different lip. It has long graceful spikes of green flowers, and was imported from Manilla by Messrs. Loddiges. It is not among Cuming's dried specimens.

75. ANGRÆCUM Ashantēnse.

A. *Ashantense;* caulibus repentibus, foliis distichis coriaceis ovatis apice oblique erosis, spicis foliis subæqualibus, floribus resupinatis, sepalis petalisque galeatis denticulatis ovato-lanceolatis obtusiusculis, labello pandurato obtuso denticulato basi unidentato, calcare arcuato subcompresso basi constricto labelli longitudine, polliniorum caudiculâ acuminatâ bipartibili.

A most curious plant with creeping stems, ovate leaves obliquely toothed at the end, as if they had been eaten away, and light cinnamon coloured flowers in spikes about four inches long. It was imported from Ashantee by Messrs. Loddiges, and flowered on the 15th June, 1843.

76. ONCIDIUM candĭdum.

O. *candidum;* pseudobulbis ovalibus compressis monophyllis, folio lineari-lanceolato basi canaliculato, racemo paucifloro flexuoso, sepalis oblongis lateralibus connatis, petalis majoribus patentibus planis obtusis, labello ovato-oblongo plano basi lineâ convexâ elevatâ transversâ aucto, columnæ alis rotundatis serratis tuberculo baseos elevato labello adnato.

A very curious plant sent by Mr. Hartweg from Guatemala. It belongs to the tetrapetalous division of the genus; and has ivory white flowers, with a couple of small violet dots at the base of each petal, and the usual prominence at the base of the column, bright yellow and adnate to the lip. The flowers are an inch in diameter.

77. SPHÆROLŎBĬUM acuminātum.

Bentham in Hugel's Enumeratio, p. 32.

A little Swan River shrub, with rush-like stems, and whorls of orange-red papilionaceous flowers. It has been flowered by Messrs. Pope and Sons, of the Handsworth Nursery, Birmingham.

78. HYPOCALYMNA angustifŏlĭum.

Endlicher in Hugel's Enumeratio, p. 50.

A charming sweet-scented greenhouse shrub, raised from Swan River seeds by Messrs. Pope and Sons, of the Handsworth Nursery, Birmingham. It has the habit of Hypocalymna robustum, but the flowers are white, and the leaves narrow and weak.

79. PLEUROTHALLIS Smithiana.

P. *Smithiana* (§ effusæ pubescentes) folio oblongo coriaceo racemum dimidio excedente, sepalis oblongis lateralibus ad apicem cohærentibus, petalis obovatis et clinandrio denticulatis, labello obovato utrinque dentato medio excavato utrinque callis 2 elevatis.

"This plant was imported from Rio in December, 1841, by Lieut. Christopher Smith, of H. M. packet "Star," and added to Sir Charles Lemon's collection at Carclew, where it flowered in May, 1843. Like others of this genus it proves to be only interesting as a subject for the Botanist, who, on dissecting the various parts of the flower and examining them through the microscope, cannot fail to be highly delighted with their singular construction, and the beautiful frosted appearance they present.

"*Stem* round, erect, from two to three inches high, brownish green, with a single joint about an inch from the root, surrounded and embraced by a brown sheathing bract, which extends nearly to the base of the leaf. *Leaves* ovate-oblong, slightly curved and hollowed in the centre, about two inches and a half long, and an inch broad, very thick and leathery, of a brownish green colour. *Flowers* six, sometimes seven, arranged alternately in a close raceme, issuing from a two-valved brown spathe at the base of the leaf, and extending about an inch and a half along the midrib. *Sepals* fleshy,

striated and covered on the outside with dense brownish pubescence. The upper one is oblong lanceolate, with three brownish purple lines along the centre, and another round the margin. The lower sepals are united, and appear as one roundish ovate acuminate body, of a brownish green, marked with numerous elevated puce-coloured spots. *Petals* very small, thin and delicate, about one-fourth the length of the upper sepal, oblong obtuse, having a purplish line along the centre and the margin, fringed and slightly marked with the same colour. *Labellum* roundish obtuse, somewhat spathulate, and spotted in the same manner as the lower sepals; attached by a small elastic membrane to the end of the column, which is curved and elongated so as to have the appearance of a little spur. *Column* about the same length as the petals, round and striated above, hollowed on the under side, with a thin pellicle at the extremity on either side of the anther case, so as to make it have the appearance of being winged. *Anther-case* deep brown, containing two very small waxy pollen-masses.

"The plant requires the constant heat of a moist stove, and thrives either on a piece of wood or in a pot of decayed vegetable matter."—W. B. Booth.

80. STIGMAPHYLLON jatrophæfolium.

Adr. de Jussieu in Ann. sc. n. s. 13. *p.* 288.

We have received specimens of this pretty plant from a Liverpool correspondent, who describes it as a free flowerer, growing luxuriantly in a moist stove. It has palmated leaves, and yellow flowers, much like those of the other species. As far as we can judge it is the best of the genus yet in gardens.

81. STANHOPEA Martiana; *var.* bicŏlor.

Bateman in Bot. Reg. 1840. *misc.* 19.

Although it is probable that some of the so-called species of Stanhopea are mere varieties of oculata, and that others may be wild mules, there seems no reason to doubt that this is really a distinct plant, for it has a lip unlike any other that we have seen, remarkably short and saccate at the base. The present variety is a lovely plant with large pure white flowers richly but sparingly spotted with crimson. In the

original S. Martiana the sepals are straw-coloured, and much more dotted with purple. Messrs. Rollisson have lately flowered it, and believe they obtained it from Mexico. It is as fine a thing as S. tigrina would be if its flowers were white, and is very sweet-scented.

82. DION edūle.

The addition of a new genus to the Cycadaceous order is indeed a fine thing; and that which is now about to be described is quite as different from the others of the order as Cycas is from Zamia. For our knowledge of it we are indebted to Mrs. Lavater, a lady long resident in Mexico, who brought home a cone and a live plant, both of which she presented to the Horticultural Society. The cone was filled with seeds, about the size of a Spanish chesnut, but after some time fell to pieces, the seeds proving to be all destitute of embryo. The plant, which is growing, has a simple stem, like that of a Zamia, but buried in wool. The leaves are deep and light green, about two feet long, pinnated, with about sixty pairs of leaflets, which are shaped like the blade of a straight sword, very sharp pointed, attached to the petiole by their whole base, with parallel simple veins, which pass distinctly into the petiole; they are about two inches and a half long.

Although the male and female flowers of this plant are unknown, the fruit affords abundant marks of distinction. It consists of woolly rigid scales, tapering to the point, and collected into a cone the size of a child's head, which scales are heart-shaped at the base, and bear on each lobe a single nut, about as large as a Chesnut. So that we have in this plant the cones and geminate seeds of Zamia and Eucephalartos, with the flat woolly scales of a Cycas; but without the marginal seeds and lax inflorescence of that genus. We propose to characterize the genus thus:—

Dion (δις et ωον). *Flores masculi* et *fœminei* ignoti. *Strobilus* ovatus, dense lanatus, (capitis infantis magnitudine); e squamis constans imbricatis, densissimè lanatis, petiolatis, altè cordatis, acuminatis, intus lævibus, basi utrinque semen solitarium (Castaneæ magnitudine) gerentibus. ——Arbuscula *humilis Mexicana*, foliis *pinnatis;* foliolis *basi latâ petiolo adnatis.*

We learn from the lady who brought this to England, that the seeds are employed in Mexico as a source of arrow-root. The plant must therefore be extremely common in some parts of that country ; and we believe it has actually been imported in some abundance by a collector, who sold his stock to Messrs. Loddiges.

83. LINDLEYA mespiloïdes.

Humboldt & Kunth nov. gen. et sp. plant. 6. 239. *t.* 562.

This very rare and curious plant has just flowered in the Garden of the Horticultural Society, where a single specimen exists, which was raised sometime since from Mr. Hartweg's Mexican seeds. It has something the appearance of Cratægus mexicana, but has a dry capsular fruit. It proves evergreen, and may possibly be hardy : but of that we have as yet no experience. Humboldt compares it for habit with the common Apple, but it would be better likened to a small narrow-leaved Medlar.

84. SPIRANTHES rosulata.

S. (Sarcoglottis) *rosulata ;* foliis oblongis coriaceis rosulatis glabris, scapo aphyllo hirsuto 2-3-vaginato, spicâ ovatâ hirsutâ, bracteis lineari-lanceolatis dorso glabris, labelli oblongi rotundati venosi ungue apice excavato basi bicruri.

A Guatemala plant, not unlike Spiranthes picta. It has a scape about nine inches high, and a close spike of green flowers. The leaves are most beautifully coated on the underside with vesicular cells, which give them a peculiar frosted appearance. Mr. Hartweg sent it to the Horticultural Society from Guatemala.

85. EPIDENDRUM collāre.

E. (Aulizeum) *collare ;* caulibus fusiformibus elongatis apice triphyllis, foliis coriaceis canaliculatis patentibus, racemo laxo paucifloro, ovario cuniculato, sepalis petalisque conformibus petaloideis lanceolatis, labello ovato obtuso undulato apice recurvo basi trilamellato, clinandrio margine elevato denticulato cincto.

From Guatemala, where Mr. Hartweg found it. Its stems are 18 inches long, strong and deeply furrowed. The flowers are white, changing to yellow and brown as they go off. The anther-bed is surrounded by an elevated edge,

which stands up something like the collar of a coat. It is not pretty.

86. TURRÆA lobāta.

T. *lobata;* foliis rhombeis apice trilobis dentatisque subtus pubescentibus, floribus solitariis axillaribus, calycibus 5-dentatis, petalis spathulatis columnæ longitudine, columnâ viginti-dentatâ laciniis subulatis, antheris 10 exsertis, ovario 5-loculari.

A very curious stove shrub, of the Meliaceous order, received by His Grace the Duke of Devonshire from Mr. Whitfield, who collected it at Sierra Leone. It has white axillary flowers, about as large as orange blossoms. It is near Turræa heterophylla of Smith, a plant from the same coast of Africa. We shall take an early opportunity of figuring it.

87. CALATHĒA villōsa.

C. *villosa;* foliis subtus glaucis pilosis, scapo elongato bracteisque cuspidatis laxis villosis, petalis obovatis bilobis.

A Demerara plant, sent to Messrs. Loddiges by Mr. Schomburgk. It has thin pale green leaves, glaucous underneath, and hairy. Its flowers are large, yellow, showy, in a loose spike, consisting of cuspidate shaggy bracts. It is a tender stove plant, with the habits of a perennial Canna.

88. EARĪNA suavĕŏlens.

E. *suaveolens;* spicâ oblongâ densâ basi subcompositâ, labello transverso rhombeo versus basin bicalloso obsoletè trilobo laciniâ intermediâ rotundatâ undulatâ emarginatâ.

This extremely rare Orchidaceous plant was sold the other day among a collection of New Zealand varieties, brought to this country by Mr. Bidwill, and is now in the possession of Messrs. Loddiges. It is a tufted species, with stems four to twelve inches high, clothed with narrow distichous somewhat rigid leaves, about three inches long. The stems are terminated by dense oblong spikes of white flowers, having a double yellow spot on the lip. In a memorandum now before me from Mr. Bidwill, I learn that it grows near Roturoa in New Zealand, on trees not very densely covered with leaves; that it is very rare even there, exceedingly beautiful, and most deliciously perfumed. From Earina mucro-

nata it differs altogether in the form of the lip and the size of the flowers, which are collected in dense spikes, and not in slender branched ones. As the temperature of New Zealand is rarely above 75°, that circumstance will have to be attended to in its cultivation.

89. ASTER cabulĭcus.

A. *cabulicus;* fruticosus, ramis ferrugineo-pubescentibus, foliis lanceolatis brevi-petiolatis denticulatis subpubescentibus subtùs pallidis, floribus corymboso-paniculatis, involucri squamis ovato-linearibus apiculatis, radio vigintifloro——Receptaculum convexum, areolatum. Achænium immaturum compresso-tetragonum pubescens. Pappus serie simplici, piliformis, subæqualis, scabriusculus. Antheræ ecaudatæ. Stigma exactè *Keerliæ.*

Almost the only plants which the Cabul expedition has yet added to our gardens are the pretty Erysimum Perofskianum and this; the seeds of which were received by the Horticultural Society from William Griffith, Esq. now Superintendent of the Botanic Garden, Calcutta. It forms a small half-shrubby bush, quite hardy, with willow-like rugose leaves, smelling something like wormwood, and flowers, at first white, afterwards becoming pale lilac, and resembling those of an American Aster. Although not referable to any of the sections admitted by DeCandolle into that genus, it does not appear in any way distinguishable, unless the ripe fruit, at present unknown, should afford grounds of distinction.

90. STENOMESSON aurantiacum. *Herbert.*

S. *aurantiacum;* spathâ sesquiunciali perstanter pallidè virescente, pedunculis inæqualibus longiore, germine viridi, tubo gracili $\frac{3}{4}$ unciali vel ultra inferne subvirenter pallidiore superne $\frac{3}{16}$ unc. lato aurantiaco, limbo aurantiaco semunciali, laciniarum marginibus undulatis, coronâ brevi, sinubus edentatis, filamentis $\frac{1}{4}$ unc. limbo semunciam stylo brevioribus. Var. 1. Spatiis interstamineis repandis. Pancr. aurantiacum Humb. Kunth. 1. 280. *Chillo in prov. Quito (ipse non vidi).* Var. 2. Spatiis interstamineis acutè incisis. *Ex Quito; Spofforthiæ* floruit. W. H.

91. STENOMĚSSON eustephioīdes. *Herbert.*

S. *enstephioides;* spathâ unciali marcescente pedunculos vix superante, germine viridi, tubo $\frac{3}{4}$ unciali vel ultra inferne pallidiore basi virente campanulato $\frac{1}{4}$ unc. lato aurantiaco, limbo semunciali aurantiaco marginibus pallidioribus, spatiis coronæ interstamineis acutè incisis, filamentis alatis

alis superne setosè productis, antheris limbum superantibus stylo ⅜ unc. brevioribus. *Ex Quito; Spofforthiæ floruit.* W. H.

These two bulbs are only known to us by the above brief memoranda from the Dean of Manchester.

92. RANDĬA oxypetăla.

R. *oxypetala;* spinescens, fruticosa, undique glaberrima ramulis tantum junioribus pubescentibus, foliis ovalibus sessilibus approximatis, floribus terminalibus sessilibus solitariis, calycis limbo quinquedentato dentibus setaceis, corollæ brevis infundibularis lobis acuminatis arctè reflexis tubi longitudine, ovarii loculis dispermis.

This new species of Randia has been raised in the garden of the Horticultural Society, from seeds received from Dr. Falconer of Saharunpur. It forms a dense somewhat spiny shrub, with shining small oval densely crowded leaves, and solitary terminal stalkless flowers, which are yellowish and sweet-scented. It approaches R. dumetorum in many respects, but its flowers are smooth not downy, the lobes of the corolla are turned back and pressed close to the tube, and are drawn to a fine point; finally, the teeth of the calyx are setaceous, and not oblong or leafy. The ovary is two-celled, and each cell contains a pair of ovules, fixed by their middle to a prominent placenta. It is not quite hardy here, but would probably prove so in the south-west of England.

93. BRONGNIARTIA serĭcea.

Schlechtendahl in Linnæa, vol. 12. p. 336.

A downy shrub, when out of flower looking something like an Amorpha, with leaves pubescent on the midrib and beneath, but smooth above when full grown. Each leaf consists of about nine pairs of oval leaflets, terminated by a little setaceous point. The flowers grow *singly* in the axils, have a large green calyx, and dingy purple petals very little larger than it is. It was raised in the garden of the Horticultural Society from Mexican seeds, presented by G. F. Dickson, Esq. It has little beauty, and is too tender for the climate of London. We perceive no material difference between the garden plant and that described by Professor Schlechtendahl, except that he speaks of his flowers growing in fours; here they are always solitary. We find, however, upon reading

his detailed description, that it was the strongest of the wild specimens examined by him in which this character existed, and therefore it may be presumed that the solitary flowers of the garden plant may be owing to its being young.

94. ALSTRŒMERIA magnifica. *Herbert.*

A. *magnifica;* perianthii sepalis apiculatè obovatis pallidissimè purpurascentibus biuncialibus 1¼ unc. latis, petalo inferiore concolore rotundatè obtuso unciam lato 1½ uncialibus, superioribus angustioribus ¾ unc. latis 1⅝ longis inferne densè saturatè purpurâ striato-suffusis medio fulvis superne fulvo-purpurascentibus. *W. H.*

Of this fine plant a single flower has been examined by the learned Dean of Manchester, who regards it as a new species allied to the Ligtu of Feuillé, which he considers distinct from our A. Ligtu, figured at t. 13. of 1839; the latter, Dr. Herbert looks upon as a very striking variety of A. pulchella. The plant has been raised from seeds collected near Coquimbo by Mr. Bridges, and was sent us by Mr. Carter, seedsman, Holborn.

95. ALSTRŒMERIA Chorillensis. *Herbert.*

A. *Chorillensis;* caule circiter vel sub-pedali, pedunculis 2-3-floris, foliis circiter 2½ unc. longis ⅝ latis superficie superiore resupinatâ costatâ fortiter 2-4-nervatâ confertim albo punctatâ inferiore sursum-versâ glabrâ nitente, perianthio subsesquiunciali (circiter 1⅝) dilutè roseo costis externis apicibusque viridibus, sepalis latè spatulatis subparibus ultra semunciam latis, petalis angustioribus acutis superioribus summâ parte dilutè roseâ mediâ luteâ imâ pallidâ a parte roseâ usque ad basim maculis brevibus angustis linearibus rufescentibus obliquis notatis, genitalibus dilutè roseis, polline pallido, capsulâ subsphæricâ seminibus parvis rotundis obscurè brunneis densè tuberculatis chalazâ obscuriore orbiculari medio depressâ umbilico inconspicuo subapiculato pallidiore. *Habitat montana Chorillos dicta prope Limam in Peruviâ.* W. H.

We are unacquainted with this plant, except by the foregoing description; for which, and the following, we are indebted to the Dean of Manchester.

96. BARBACENIA squamāta.

B. *squamata;* (§ Veitchia, vel, si mavis, genus Veitchia; squamis sex petaloideis stamina et limbi lacinias interpositis) foliis subtrifariam patentibus triuncialibus canaliculatis acutis viridibus margine sub lente scabro, caule quadrunciali subtereti unifloro nudo, germine subtrigonè angustè subcampanulato ⅝ unc. longo luteo rubro-striato angulis subaculeatis, tubo

parili ⅛ unc. limbo laciniis acutè suberectè semipatentibus ultra semuncialibus acutis rubris, sepalorum costâ lutescente, antheris fauce tubi subsessilibus sub-¼-uncialibus, squamis longitudine antheras parum superantibus liberis superne latioribus erosis rubris inferne lutescentibus, stylo erecto gracili antheris breviore pallido, stigmate parum crassiore rubescente. *Habitat Braziliam in montibus Organ dictis. Credo equidem filamenta in Barbaceniâ purpureâ (cujus inter Vellosias et Barbacenias tantum flores recentes vidi) apice erosa et antheras superantia squamas esse reverâ filamenta mentientes et antherarum dorso adnatas, quales in hâc sectione Veitchiâ liberas invenimus vix eâ ratione, ut crediderim, a Barbaceniâ omnino distinguendâ.* W. H.

This neat little plant is one of the many novelties introduced by the collector of Mr. Veitch, nurseryman, at Exeter, who called it a Vellosia; but Vellosia has numerous stamens in fascicles. It approaches nearer to Barbacenia, from which it is distinguished by six remarkable petaloid scales between the segments of the limb and the anthers. Mr. Veitch well deserves that the section of Barbacenia with free scales, or genus if it be considered distinct, should be named after him. W. H.

97. EPIDENDRUM diōtum.

E. (Encyclium) *diotum;* pseudobulbis ovatis corrugatis monophyllis, foliis coriaceis ensatis patulis racemo duplo brevioribus, floribus distantibus, sepalis petalisque obovatis unguiculatis undulatis acutis, labelli obtusè rhombei tripartiti axi elevato carnoso in medio foveato, laciniis lateralibus planis erectis rotundatis, intermediâ rotundatâ undulatâ cuspidatâ convexâ, clinandrio integro.

From Guatemala, where it was found by Mr. Hartweg. Its leaves are about a foot long, spreading, and very stiff. The raceme is about two feet high. The flowers are an inch and a half in diameter, of a dull cinnamon colour, with a little yellow and some chocolate veins in the lip. It is one of the many species in the way of E. asperum. The flowers are either scentless, or have a slight odour of Elder leaves.

98. SCLEROÖN oleīnum.

Scleroon. Calyx campanulatus, breviter 4-dentatus. Corolla infundibuliformis, limbo quadrifido. Stamina 4. Ovarium 4-loculare, loculis uniovulatis, ovulis lateraliter affixis. Stylus brevis. Stigmata distincta, obtusa. Drupa indehiscens, calyce immutato suffulta, putamine osseo, loculis 4 (quorum 2 sæpe abortiunt) monospermis. Semina oblonga lateraliter affixa. Embryonis recti radicula ad basin fructus spectans brevissima; cotyledones crassæ carnosæ. Plumula inconspicua.——Frutex;

foliis oppositis integris integerrimis, inflorescentia axillari cymosa pauciflora. *Bentham in litt.*

There is a little Mexican shrub in our gardens, with the appearance of an Olive, the flowers of a Verbena, and the name of Daphne. Mr. Hartweg found it in fruit only, and sent it to the Horticultural Garden, where it has flowered; and has proved to be a new genus of the Verbenaceous order, for which Mr. Bentham has framed the preceding technical character. Its nearest affinity seems to be with Ægiphila. The flowers are small, greenish white, in little axillary cymes. It has no beauty.

99. PERISTERIA.

Upon reconsidering the generic character of this genus, and carefully studying its species, we find that it has not yet been defined with sufficient exactness, and that we ourselves lately, deceived by habit and a loose definition, have admitted into it a species which ought to have been excluded. The type of the genus is the Dove Plant, or Spirito Santo, of Panama, in which we find an erect scape; globose fleshy flowers; equal and regular sepals united at the base, but projecting forwards with the chin usual in the Maxillaridous section; a lip continuous with the column, fleshy, arrow-headed at the base, distinctly articulated in the middle, and having its epichilium undivided and bent down over the face of the column; a column short, fleshy, and wingless; and finally a pair of furrowed pollen-masses, sessile on a narrow gland. With these peculiarities, most of the Peristerias afterwards published agree, except that their scapes are pendulous, instead of being erect.

But I find that Peristeria Humboldti, figured at t. 18 of this volume, is in some important respects different; its upper sepal stands a little apart, so as to give the flower somewhat a two-lipped appearance; its labellum has no articulation in the middle; and its pollen-masses are placed at the end of a narrow caudicle, terminating in a crescent-shaped gland; added to which the column is furnished with a pair of very broad wings. All these circumstances induce us now to separate Peristeria Humboldti under the name of ACINETA, in allusion to the immoveable jointless condition of the lip. Peristeria Barkeri is a second species of this genus.

In addition to these we have a plant in cultivation, discovered by Mr. Hartweg in Guatemala, the habit of which is exactly that of a Peristeria, but which has the lip not only articulated in the middle but also with the column, and has the caudicle and gland of Lycaste, from which it differs, independently of habit, in having two pollen-masses and not four. To this plant I propose to give the old classical name of Lacæna, which the incision between the upper and lower half of the lip renders applicable.

The following will be the technical characters of the plants to which these observations apply.

PERISTERIA. *Hooker Bot. Mag.* 3116. Perianthium globosum. Sepala basi connata concava. Petala conformia, paulò minora. Labellum cum columnâ continuum, epichilio carnoso incumbente indiviso cum hypochilio sagittato levitèr articulato. Columna erecta, semiteres, aptera, c. hypochilio continua. Anthera ecristata, bilocularis. Pollinia 2, posticè fissa, in glandulam linearem sessilia.——Herbæ subterrestres, pseudobulbosæ. Folia plicata. Scapi vaginati, radicales, multiflori. Flores speciosi.

1. P. *elata* (Hooker in Bot. Mag. t. 3116); scapo erecto orgyali, racemo laxo elongato, epichilio rotundato serrulato medio elevato calloso, hypochilio maximo lobis obtusis disco unidentatis columnâ longioribus.——*Panama.*——Flowers white, with lilac specks on the base of the lip, very sweet-scented. Stem sometimes six feet high.
2. P. *pendula* (Hooker in Bot. Mag. t. 3479. P. *maculata*, Hort.); scapo brevi pendulo, racemo denso, epichilio rotundato integerrimo supra bilamellato, hypochilio elongato lobis rotundatis callo maximo lunato in medio, columnâ bicorni, rostello truncato. ——*Demerara.*——Flowers pale purple, spotted with lilac, with a scarcely pleasant aromatic odour.
3. P. *guttata* (Knowles & Westcott, Floral Cabinet, t. 70.); racemo brevi denso pendulo, epichilio rhombeo-oblongo serrulato leviter verrucoso, hypochilio brevi lobis acutis, columnâ muticâ, rostello brevi.——*Demerara.* ——Flowers deeply speckled with brownish purple, on a pale dingy ground, rather agreeably sweet-scented with an aromatic resinous odour.
4. P. *cerina* (Lindl. in Bot. Reg. t. 1953.); scapo brevi pendulo, racemo denso, epichilio ovato emarginato crispo serrulato, hypochilii lobis brevibus acutiusculis, columnâ muticâ, rostello truncato.——*Central America.* ——Flowers yellow, unspotted, with the smell of bruised juniper leaves, only more aromatic.

100. ACINETA.

Perianthium carnosum, patulum, sepalis basi connatis supremo subascendente. Petala conformia, paulo minora. Labellum cum columnâ continuum, carnosissimum, hypochilio oblongo concavo, epichilio haud articulato tripartito ascendente, basi appendice carnosâ aucto. Columna erecta utrinque in marginem latum rotundatum producta. Anthera ecristata, bilocularis. Pollinia 2, postice sulcata, caudiculâ lineari, glandulâ lunatâ.——Herbæ Peristeriæ habitu.

1. A. *Humboldtii* (*Peristeria Humboldtii*, Lindl. in Bot. Reg. 1843, t. 18. *Anguloa superba*, H. B. K. nov. & sp. 1. 343. t. 93. Lindl. g. & sp. orch. 160.); petalis quam sepala duplò minoribus, callo labelli lineari simplici laciniâ intermediâ bilobâ lateralibus cuneatis, columnâ brevi alis latissimis.——*Central America*.——Racemes very long, pendulous. Flowers of a rich purplish brown, enlivened by deep spots and blotches of the same.
2. A. *Barkeri* (*Peristeria Barkeria*, Bateman Orch. Mex. et Guat. t. 8.); petalis sepalis æqualibus, callo labelli duplici inferiore lineari villoso superiore subhastato apice 3-dentato basi multidentato, laciniâ intermediâ emarginatâ lateralibus acinaciformibus, columnâ elongatâ alis angustioribus.——*Mexico*.——Scape long, pendulous, lax, many-flowered. Flowers yellow, whole coloured. The lip has certainly no articulation in the middle, although from Mrs. Withers's figure in Mr. Bateman's splendid plate such would seem to be the case.

101. LACÆNA.

Perianthium carnosum patens, sepalis subæqualibus basi subconnatis. Petala conformia minora. Labellum cum columnâ et medio articulatum, hypochilio unguiculato cuneato bilobo apice pulvinato, epichilio integro. Columna erecta semiteres Pollinia 2, posticè fissa, caudiculâ setaceâ, glandulâ minutâ.——Herbæ, Peristeriæ habitu.

1. Lacæna *bicolor*.——*Guatemala*——Racemes long, drooping. Flowers pale yellow, with the lip spotted with dark purple.

102. CYMBIDIUM chloranthum.

C. *chloranthum*; foliis ensiformibus supra pseudobulbum breve oblongum equitantibus obtusis supra medium planis recurvis, racemo stricto foliis breviore, bracteis minutissimis, sepalis petalisque obtusis, labello basi pubescente apice retuso emarginato laciniis lateralibus nanis triangularibus, lamellis distantibus arcuatis verrucosis.

A Nepalese species, which has lately flowered with Messrs. Loddiges. Its strictly erect racemes, such as those of C. ensifolium, separate it widely from the majority of Indian species. The sepals and petals are green; the lip yellowish spotted with crimson at the base. After flowering the blossoms soon become of a dusky wine colour.

103. ACHIMENES hirsuta.

A. *hirsuta*; caulibus hirsutis paniculatis bulbilliferis, foliis cordatis serratis hirsutis, pedunculis solitariis foliis æqualibus, corollæ limbo plano laciniis rotundatis serrulatis.

This very pretty new species of a charming genus was raised by Mr. Henderson, of Pine Apple Place, from among

a mass of Guatemala Orchidaceæ bought at one of Mr. Skinner's sales. It is in the way of A. pedunculata, but the flowers are larger, the border is much more flat, and the colour is a deep rich rose instead of the clear orange of A. pedunculata. We hope soon to be able to figure this.

104. EPIDENDRUM limbātum.

E. *limbatum* (Encyclium); omninò facie *E. glauci*, sed sepalis petalisque subrotundo-ovatis, columnæ appendice truncatâ dentatâ tenui, floribus duplò majoribus.

A Guatemala plant, purchased by Messrs. Loddiges at one of Mr. Skinner's sales. It has quite the habit of E. glaucum, but is much larger, and its flowers have roundish sepals and petals, like those of E. squalidum. The appendage at the back of the anther is thin, truncate and toothed, not rounded, fleshy and entire. It flowered in August last. The name alludes to a narrow yellowish border which surrounds the dull purplish brown sepals and petals. It has a very slight smell, like that of cobler's wax.

105. ACRIOPSIS picta.

A. *picta;* pseudobulbis ovatis, foliis solitariis linearibus canaliculatis patulis emarginatis, scapo paniculato, labelli laciniis lateralibus triangularibus intermediâ elongatâ lineari disco bilamellato, columnæ brachiis 2 glandulosis.

A rather pretty small flowered Orchidaceous plant, with the habit of Sarcanthus pallidus. Its flowers are white and green, with a dull purple stain at the point of the four segments of the perianth, and the same colour on the disk of the lip, leaving a white border all round. We have received it from M. Van Houtte of Ghent, who informs us that it was obtained at Bantam, in the virgin forests of Datarbjaay and Bodjomanik, on the river Tjileman, by Mr. Adolph Papeleu, one of the partners in M. Van Houtte's Nursery.

106. VERTICORDIA densiflora.

Lindley Swan River Vegetation, p. vi.

A small heath-like shrub, with dotted scentless leaves, and corymbs of pink flowers, not white as they were supposed to

be from the appearance of dried specimens. It is one of the curious race of Fringe Myrtles. The flowers are exquisitely beautiful when viewed with a magnifying glass, but they are not bright enough in colour, nor in sufficient mass to produce a striking effect. It is a native of Swan River, and has been raised in the Nursery of Messrs. Veitch of Exeter.

107. GOVENĬA fasciāta.

G. *fasciata;* spicâ elongatâ cylindraceâ, bracteis ovario æqualibus, sepalis angustis acutis, petalis obovato-lanceolatis duplò latioribus, labello oblongo apiculato intus lævi, antheræ mucrone inflexo.

A discovery by Mr. Linden, who sent it from Mexico to Mr. Rucker. It is one of the prettiest of this genus of Orchidaceæ, having clear yellow flowers, whose sepals and petals are beautifully marked by fine broken bands of crimson. The long bracts, thin narrow spike of flowers, and oblong, not ovate, lip, are the marks by which it is best recognized.

108. FRIESIA pedunculāris.

DeCand. Prodr. 1. 520.

A neat evergreen half-hardy shrub, with deep green leathery ovate-lanceolate serrated leaves, sometimes opposite, sometimes alternate, and varying a good deal in the length of their foot-stalks. The flowers are something like those of an Andromeda speciosa, white, drooping from a slender stalk, and composed of from four to six sepals and petals. The latter are wedge-shaped, exactly 3-cleft, with two deep crimson stripes in the middle. The plant, which we owe to the kindness of Mr. Henderson, of Pine Apple Place, will probably become a pretty conservatory plant; or perhaps it may be as hardy as a Camellia; but that has to be ascertained. It belongs to the Elæocarpaceous order.

109. BOLBOPHYLLUM calamarium.

B. *calamarium;* pseudobulbis tetragonis, folio oblongo plano coriaceo obtuso basi canaliculato, scapo stricto longissimo apice florido, bracteis membranaceis emarcidis ovarii longitudine, sepalis angustè triangularibus margine pubescentibus, petalis cornuformibus subteretibus glabris, labello sessili mobili lineari basi sulcato margine omni tomentoso supra medium villis longissimis crinitum, columnæ cornubus falcatis.

A very singular plant, allied to B. saltatorium, and like that species having a moveable lip fringed with long purple hairs, which rises and falls spontaneously as the stem sways about in the wind. Its scape is full two feet long, stiff and erect. The flowers are of a dirty yellow ochre colour with a little purple upon them; the lip is dull purple. For our specimens we are indebted to Col. Fielding, who procured the species from Sierra Leone.

110. MILTONIA candida; *var.* grandiflora.

Lindl. in Bot. Reg. 1838. *misc.* 29. *Sertum Orch. t.* 21.

Of this fine plant a most beautiful variety has flowered with Mr. Rucker, who purchased it in Hamburgh. Its flowers are twice as large as those of the original variety, the lip is of a most brilliant white, and the sepals and petals are of a deep rich brown spotted towards the extremities only with yellow.

111. CATASĒTUM Naso.

C. *Naso;* spicâ brevi erectâ, sepalis oblongo-lanceolatis complicatis petalisque lanceolatis ascendentibus æqualibus, labello hemisphærico apice abruptè in appendicem carnosum ovatum obtusum producto: marginibus basi tenuibus laceris amplexicolumnibus: lineâ intramarginali carnosâ inflexâ connivente aperturam cordiformem efficiente, columnâ bicirrhosâ.

This singular plant was received last year from Linden by Mr. Rucker, with whom it has lately flowered. It is a plant whose flowers before opening might be mistaken for C. tridentatum, but when expanded they are totally different. The sepals and petals, which are very pale dull green outside, are slightly pink inside, and richly spotted, in irregular bars, with a deep crimson-purple. The lip is a most singular organ, and very difficult to describe. Viewed from the side it has a hemispherical form, and is green except at the base, where it is extended into a black-purple lacerated margin embracing the column, and at the point where it is extended into a long flat horn or *nose.* Seen in front it is almost wholly of the same rich black-purple, and looks as if it were a solid hemisphere pierced in the middle with a large heart-shaped hole; but this appearance is owing to a thick fleshy rim which rises from within the true edge of the lip, and directing itself inwards horizontally with an uneven outline, at last touches in

front of the column, and produces the appearance of a junction. The flowers have no smell.

112. MASDEVALLIA floribunda.

M. *floribunda;* folio carnoso spathulato obtuso apice tridentato, scapo longiore unifloro, flore bilabiato, sepalis lateralibus oblongis dorsali duplò breviore ovato omnibus in acumen linearem obtusum productis, petalis truncatis antice infra medium unidentatis lineis duabus brevibus carnosis versus apicem incrassatis, labello ovato-oblongo lævi lineis duabus elevatis carnosis rotundatis obsoletis.

A little Mexican Orchidaceous plant, from the collection of John Rogers, Esq. of Sevenoaks, flowering profusely during a large part of the year. The leaves are olive green, about three inches and a half long, including the stalk, of a thick texture, and a rounded, not acute, margin. The flowers are a dull brownish yellow, and grow singly on slender stalks five or six inches long. The length of the sepals is about three quarters of an inch. It is the only species of this singular genus not found in the northern hemisphere.

113. RODRIGUEZIA carnea.

R. *carnea;* pseudobulbis compressis ovalibus, foliis lanceolatis canaliculatis acutis, racemo secundo foliis breviore ascendente, sepalo supremo fornicato inferiore bidentato, petalis ovatis obtusis, labello juxtâ basin aurito disco interruptè bilamellato apice cuneato emarginato, columnâ elongatâ basi lanatâ.

A discovery of Mr. Linden in Columbia, in the year 1842, very like a small pale specimen of R. secunda. It differs however not merely in size and colour, but in having only two instead of three raised plates on the bend of the labellum, and in its column being unusually long and woolly. We are indebted for our specimen to the Rev. J. Clowes. The foliage is much the same as that of R. secunda, but narrower.

114. BEATONIA atrāta.

Herbert in litteris.

B. *atrata;* cormo oblongè ovato apiculato, foliis plicatis suberectis acutis utrinque attenuatis 12-15-unc. sesquiunc. vel ultra latis glabris [margine vix sub lente subscabro] viridibus, caule bipedali articulis foliaceo-bracteatis, spathâ 2½ unc. bivalvi æquali bracteis 2 internis minoribus, floribus successivis, pedunculis teretibus unciam exsertis virescentibus, ovario

semunciali oblongo inferne attenuato, perianthio sesquiunciam patente antemeridiano fugaci, sepalorum ungue pallidè virescente densè et minutè fusco-purpureo notato laminâ rotundatâ concavâ fusco-purpureâ inferne pallidâ, petalis brevioribus ungue angustiore pallidiore laminâ pallidâ superne fusco-purpureâ, columnâ stamineâ $\frac{5}{16}$ unc. antheris $\frac{5}{16}$ unc. acutis divaricatis polline obscurè aureo, styli lobis tenuibus depressis superne bifidis stigmate minuto terminali, capsulâ trigonâ unciali. *W. H.*

This plant was imported by Sir C. Lemon in the spring of 1843, having been sent by Mr. J. Rule, of the Real del Monte mines. The foregoing character is taken from a description transmitted by Mr. Booth, and an examination of the dry specimen of the plant and flower sent from Carclew in a letter. It appears to agree in essential points with Beatonia purpurea, and Beatonia curvata, one of Hartweg's plants, which flowered at Spofforth in August, 1843.—W. H.

The following is Mr. Booth's, above alluded to:—" This plant has so great a resemblance to the old *Tigridia Pavonia* in general appearance, that I suspected it to be nothing more than a variety of that well known plant. On flowering, however, it proved to be totally different, by no means so showy, but quite as remarkable in some respects, especially in its flowers, which are beautifully pencilled all over with dark coloured spots like a Fritillary.

" *Bulbs* ovate oblong, tapering upwards. *Leaves* ensiform, plaited, nearly erect, oblong lanceolate acute, quite smooth and of a rich deep green on both sides ; varying from twelve to fifteen inches in length, and one and a half or two inches in breadth, tapering gradually to both ends. *Scape* two feet high, (extrafoliaceous as in other Beatonias—W. H.) round and erect with several joints, having each a one-leaved spathe, similar in form and colour to the leaves, but narrower and shorter, producing several flowers one and a half inch in diameter, which open in succession, one at a time, and continue expanded during the day, finally closing again in the afternoon. *Pedicells* round, pale green, an inch longer than the spathe. *Sepals* ovate oblong concave, the inner half (unguis) which is narrowest, of a pale dirty green marked with numerous small dark brown spots. The outer portion (lamina) is roundish concave and reflexed, of a very deep brown colour, paler towards the margin, and spotted. *Petals* about half as long as the sepals, but broader in proportion and more concave, tapering to a narrow claw at the base, and having a small roundish reflexed point, *spotted in the same way as the*

sepals, (certainly not so in the specimen.—W. H.) *Column* round, erect, brownish yellow, rather higher than the depth of the cup, bearing at the top three large, oblong-lanceolate *anthers*, which spread in the same direction as the sepals, and split along the margin to emit the pollen which is dark coloured. *Styles* three, apparently six, owing to each of them being divided near the base into two roundish, curved, shining yellowish coloured bodies. *Capsule* triangular, an inch long, pale green, 3-celled, containing numerous seeds in each, attached in twos to the placenta. The plant delights in a rich loamy soil, and is probably quite as hardy as the Tigridia Pavonia."

In addition to this, the learned Dean of Manchester adds, that " the true stigma appears to be the terminal point of each lobe, as in other Beatonias, and not a fimbriated line along the lobes, as in Tigridia. It appears under the lens to have between the lobes the same minute crest as B. purpurea. The anthers are decurved as in Beatonia, not recurved as in Tigridia. It seems to be in perfect accordance with B. purpurea and B. curvata."

115. BEATONIA curvata.

Herbert in litteris.

B. *curvata;* cormo ut in B. purpureâ, foliis 7 et ultra unc. sub $\frac{1}{4}$ unc. latis plicatis acutis glabris viridibus, caule tenui extrafoliaceo bracteâ circiter sesquiunc. infra spatham tenui acutâ $3\frac{1}{2}$ unc., spathâ 1-valvi acutâ subsesquiunciali, pedunculis supernè exsertis curvatis, ovario trigono $\frac{1}{4}$ unc., perianthio unguibus crateriformiter approximatis maculâ ad basim purpureâ, sepalinis inferne pallidè viridi-lutescentibus medio minutè purpureâ punctatis superne densius punctatis lutescentibus laminâ patente rubro-purpureâ semunciam latâ ultra semunc. longâ apicem subacutum versùs undulatâ, unguibus petalinis magis crateriformibus densè obscurè purpureâ punctatis superne obscurè rubro-purpureis cubito velut utrinque in cratere lateraliter prominente laminâ rubro-purpureâ $\frac{3}{16}$ latâ $\frac{1}{4}$ unc. longâ subreflexè patente crateriformi acutâ, columnâ stamineâ ungues subæquante pallidâ, antheris sessilibus basi latiore obtusè subulatis loculis sepala respicientibus parum decurvis polline rufescente, styli lobis rubro-purpureis decurvis superne bifidis lobis tenuibus glabris decurvis stigmate minuto terminali. *W. H.*

One of Hartweg's plants, probably from Comalapan or the vicinity of Real del Monte. It confirms the correctness of the separation of Beatonia: conforming in all the important features of difference, though differing from *B. purpurea* in

important points, especially the curvature of the peduncle. The Beatonias, whether considered as a section or a distinct genus, have much smaller flowers, in all tending to purple, and they will not breed with Tigridia as far as tried.—W. H.

116. STANHOPEA guttulata.

S. *guttulata;* sepalo supremo oblongo concavo apice abruptè recurvo, labelli hypochilio angusto a latere compresso apice carnoso dente valido inflexo, epichilii cornubus lateralibus teretibus apiculatis lobo intermedio ovato indiviso brevioribus, columnâ apice tantùm abruptè alatâ.

Of this very singular and most distinct species I have only seen a single flower, from the collection of J. H. Wanklyn, Esq. of Crumpsell House, and I am unacquainted with its history. The flower was rather small for the genus, of a clear very pale nankin colour, closely covered all over with small crimson and brown spots and dots, even up to the tip of the labellum. It is to be hoped that further information concerning it will soon be gained. It is a plant of the greatest interest.

117. CYCNOCHES ventricosum, and CYCNOCHES Egertonianum.

"Strange things," says Mr. Bateman, in his magnificent work on Orchidaceæ, now alas concluded—"and no less strange than true—have already been recorded of Orchidaceous plants, but the case which is represented in the accompanying plate casts into the shade all former frolics of this Protean tribe. The facts are briefly as follow.

"Among Mr. Skinner's earliest Guatemala collections, attention was particularly directed to the specimens of a plant which to the habit of a *Cycnoches* joined the long pendulous stems of a *Gongora*, and for the possession of which, in a living state, no small anxiety was entertained. Some plants were speedily transmitted by Mr. Skinner, but these, on flowering, proved to be merely the old *C. ventricosum.* A mistake was of course suspected, and Mr. Skinner being again applied to, sent over a fresh supply of plants, for the authenticity of which he vouched; but these were scarcely settled in the stove, when flowers of *C. ventricosum* were again produced. Mr. Skinner being importuned for the third time, and being

then on the point of returning to this country, determined to take one of the plants under his special protection during the voyage, which, flowering on the passage, seemed to preclude the possibility of further confusion or disappointment. The specimens produced at sea were exhibited, and the plant itself placed in the stove at Knypersley, where it commenced growing with the utmost vigour. The season of flowering soon arrived, but brought with it a recurrence of the former scene of astonishment and vexation, for the blossoms, instead of those of the coveted novelty, were not distinguishable from the old *C. ventricosum.* These were still hanging to the stem when the inexplicable plant sent forth a spike of a totally different character, and which was, in fact, precisely similar to the specimens gathered in Guatemala, and to those produced on the voyage. It is, at present, impossible to attempt any explanation of so strange a phenomenon, especially on the supposition that the two forms of flower are analogous to the male and female blossoms of other tribes, for *C. ventricosum* alone not unfrequently perfects seeds."

The plant here alluded to is a Cycnoches, which at one time bears large green flowers, in a short spike, with broad flat sepals and petals, and a convex white ovate undivided labellum; and at another produces small blackish simple flowers in a very long drooping spike, with narrow sepals and petals rolled back upon the stalk, and a circular purple labellum, with the edge broken up into many fingers, a lancet-shaped appendage at the point, and a kind of horn springing from the middle. These things are so totally different that, notwithstanding the strange sportings represented at fol. 1951 of this work, and the unquestionable authority of Mr. Bateman, there were many persons, well skilled in the habits of Orchidaceæ, who felt convinced that some mistake had been made, and that in reality it was impossible that such totally different flowers could have been borne by one and the same plant.

But what is impossible in nature?

On the 15th of September last, I received from Robert Steyner Holford, Esq. of Westonbirt, near Tetbury in Gloucestershire, a flower-spike bearing flowers of Cycnoches ventricosum and C. Egertonianum *intermixed;* it was exhibited at a meeting of the Horticultural Society, and I now produce a figure of it. The plant which bore this specimen had been

purchased by Mr. Holford of Messrs. Rollissons of Tooting as *Cycnoches ventricosum.*

Here it will be seen that fig. 2. is nearly *Cycnoches ventricosum,* but its lip is here and there raised into warts, which are the beginning of the lobes of *C. Egertonianum,* and moreover some of the dark purple of the latter is appearing at the base of the column and the tips of the sepals. At fig. 3. the purple of *Egertonianum* is displacing the green of *ventricosum,* the sepals are rolling back, and the labellum is almost wholly changed, but the sepals are still those of *C. ventricosum.* At fig. 4. and 5. the transformation is complete.

Another curious point in this instance is that the transformations occur in no certain order. The lowest flower on the spike, No. 1, is more *Egertonianum* than *ventricosum;* the next above it, No. 2, is almost wholly *ventricosum;* that which succeeds, No. 3, is more *ventricosum* than *Egertonianum;* and 4 and 5, the last on the spike, are wholly *Egertonianum.*

What with such cases as this, the Dean of Manchester's Narcissi, and the singular hybrids with which botanists are becoming familiar, all ideas of species and stability of structure in the vegetable kingdom, are shaken to their foundation.

118. LONICERA diversifolia.

Wall. cat. herb. ind. no. 477.

L. *diversifolia;* pubescens, erecta, foliis ovatis acutis, floribus geminis sessilibus axillaribus, corollæ lobo inferiore lineari recurvo superiore cordato convexo apice truncato tridentato.

A hardy shrub, raised in the Garden of the Horticultural Society from seeds presented by the Honourable Court of Directors of the East India Company. It is in the way of Lonicera Xylosteum, the common Fly Honeysuckle, and has bright yellow sessile flowers appearing in June.

119. EPIDĒNDRUM dichrōmum.

E. (Encyclium) *dichromum;* pseudobulbis ovato-fusiformibus diphyllis, foliis ligulatis planis apice rotundatis racemo laxo paucifloro brevioribus, sepalis lineari-lanceolatis, petalis obovato-lanceolatis latioribus, labelli trilobi lobo medio obcordato cum mucrone pluries costato lateralibus duplò brevioribus rotundatis apice patulis, columnâ apice biauritâ.

A specimen of this plant was exhibited to the Horticultural Society on the 3rd Oct. by Mr. Quesnel of Havre, who stated that it came to him from Pernambuco. Unfortunately its colours were much changed, and it was in such a bad state that no positive opinion could be formed of it except that it is new. If, as we are informed, it had, when fresh, pure white sepals and petals, and a rich rose-coloured labellum, it must be handsome; but when we saw it, the flowers were of a dirty yellow. They are a little larger than those of *Epidendrum bifidum*, to which indeed the species nearly approaches; but its flowers do not seem to be panicled, the labellum wants the two appendages found in that species, the column has two large ears, and the latter organ is perfectly free from the labellum.

120. EPIDENDRUM leucochīlum.

Klotzsch in Gartenzeit. 1843. *p.* 145.

E. (Spathium) *leucochilum;* foliis distichis, coriaceis, patenti-recurvis, obtusis, emarginatis, subtus costato-carinatis, basi articulato-vaginatis; racemo simplici, terminali, 6 floro, e spatha ancipiti pedunculo breviore orto; floribus magnis, arcuato-pedicellatis, odoratis; perigonii foliolis linearibus, acutis, flavo-viridibus, versus basin attenuatis, margine re-

curvis, interioribus patenti-arcuatis, exterioribus deflexis; labello trilobo albido, lobis lateralibus brevioribus, integerrimis, oblique orbicularibus, intermedio elongato, acuminato, venis baseos 3, elevatis instructo; columna elongata, candida, inferne ad apicem biloba.

This is a plant found in the Caraccas by Mr. Edward Otto, in March, 1840, growing on the stems of trees at the height of 4500 feet above the sea. It is said to prefer a cool house, and to have been shewn at the Botanical exhibition at Prague by Professor Tausch. It is fully described by Messrs. Klotzch and Edward Otto in the above mentioned place.

121. MAXILLARIA rugōsa.

Scheidweiler in Gartenzeit. 1843. p. 101.

M. *rugosa;* pseudobulbis oblongis compressis sulcatis monophyllis vaginatis; foliis lanceolotis coriaceis rugosis apice obliquis emarginatis mucronatis, basi plicatis; scapo unifloro vaginato erecto pseudobulbo longior, scapi vaginis 6-8 ventricosis, marginatis, carinatis acutis, sepalis lateralibus lanceolatis explanatis, supremo fornicato, petalis angustioribus conniventibus; labello trilobo carnoso, lobis lateralibus integris, intermedio oblongo apice sulcato, in axi callo obcordato ad basin callo oblongo crassiore munito.

A Brazilian plant, according to its author allied to his Maxillaria galeata, the flowers of which have appeared in Count Aremberg's collection. Its pseudo-bulbs are described as being two inches high and nine lines broad; the leaf nine inches long and fifteen lines broad; the scape 3½ inches high. The sepals are lanceolate, acute, ochraceous, purple towards the base; the petals are purple; the lip dark purple; the pollen-masses four, with a transverse transparent gland, and a membranous white caudicula.

122. CRYPTOSANUS scriptus.

Scheidweiler in Gartenzeit. 1843. p. 101.

Under this name is described a Brazilian Orchidaceous plant, said to be botanically intermediate between Cymbidium and Maxillaria. The pseudo-bulbs are one-leaved, compressed and two-edged. The leaf is lanceolate, coriaceous, opaque, and mucronate. The racemes are axillary; the bracts subulate and very small; the flowers two or three on each stalk, scentless, small, green, with sanguine spots and

lines. Mr. Scheidweiler gives the following definition of his new genus.

Char. gen. Perianthium explanatum, sepalis petalisque subæqualibus, sepalo supremo fornicato, labello indiviso oblongo apiculato, disco calloso, cum basi columnæ accreto, saccato ; sacculi ore ciliis densis cincto ; columna brevis clavata apice auriculata. Anthera unilocularis, pollinia duo, pyriformia, postice sulcata ; caudicula subulata, glandula oblonga.

123. CATTLEYA Arembergii.

Scheidweiler in Gartenzeit. 1843. *p.* 109.

C. *Arembergii ;* sepalis lateralibus falcatis obtusiusculis, supremo lanceolato, petalis latioribus undulatis, labelli trilobi lobis undulato-crispis, intermèdio margine lilacino lamina lutea, lateralibus margine lutescentibus, spatha herbacea compressa obtusa, pseudobulbis cylindraceis nitidis, foliis ovatis carnosis, obsure viridibus. Caulis 8 poll. altus, fol. 4 poll. longa, 2 poll. lata, flores inodori.

This species, says Mr. Scheidweiler, although having much resemblance to some others, is nevertheless distinguished by its beautiful dull green ovate leaves, and its great lilac flowers. It is a Brazilian species, and we presume described from Count Aremberg's garden, though that is not stated.

124. EPIDENDRUM glutinōsum.

Scheidweiler in Gartenzeit. 1843. *p.* 110.

E. *glutinosum ;* foliis in pseudobulbos pyriformes tunicatos glabros, binis linearibus coriaceis oblique truncatis, racemo subsimplici pedicellisque glutinosis, sepalis oblongis acuminatis petalisque spathulatis patentibus, labelli fere liberi trilobi lobis lateralibus oblongis obtusis integris erectis, intermedio ovato crispato, disco calloso depresso, columna bidentata.—Scapus terminalis pedalis, petala et sepala viridi-purpurea, extus lineis purpureis notata, labellum albo-lutescens, lobo intermedio lineis purpureis ornato.

This plant, which comes from the neighbourhood of Rio Janeiro, and is remarkable for the glutinous condition of its scape and peduncles is, according to Mr. Scheidweiler, very near Epidendrum odoratissimum, which he considers identical with the Encyclia patens of Hooker and Macradenia lutescens of Loddiges. Its scape is a foot high. The petals and sepals are greenish purple, marked outside with purple lines. The lip is whitish yellow, its middle lobe being marked with purple lines.

125. MASDEVALLIA cuprĕa.

M. *cuprea;* folio obovato-lanceolato basi angustato sub apice levissimè tridentato carinato, scapo paulò longiore triquetro bifloro, bracteis carinatis pedicellorum longitudine, sepalis lateralibus ovato-lanceolatis tricarinatis semiconnatis supremo lineari-lanceolatò paulò longiore marginibus reflexis, petalis linearibus truncatis apiculatis, labello basi concavo oblongo versus apicem convexo lineari apice obtuso reflexo.

An unknown correspondent has sent this from Hamburgh, as a native of Cayenne. Its leaf was four inches long; the scape a little longer; the upper sepal copper-coloured, the lower dark purple, copper-coloured at the point. It manifestly differs from M. guayanensis in its sepals not being caudate.

126. CROCUS pulchellus. *Herbert.*

Crocus pulchellus; cormo e minimis tunicis non fibrosis, præcipuâ truncatâ durâ intus glabrâ prope basim affixâ annulo inferne circumscisso fibris alternè brevioribus ciliato, persistente, interioribus (i.e. foliaceis) summo cormo affixis, spathâ $\frac{3}{8}$ unc. hyalinâ inclusâ albescente acutâ, bracteâ æquali latâ loratâ germine sublutescente, tubo $1\frac{1}{2}$-$2\frac{1}{2}$ unc. exserto sublutescente estriato fauce subcroceâ, limbo $1\frac{1}{8}$-$1\frac{5}{8}$ unc. laciniarum obtusarum basi intus saturatè croceâ subbarbatâ pallidè subpurpureo, venis præcipuis sepalorum tribus petalorum quinque purpureis, filamentis $\frac{1}{4}$ unc. hispidis croceis, antheris $\frac{5}{16}$ unc. cum polline albis!!! stylo pallidè croceo lobis tribus sub sole flaccidè recumbentibus $\frac{3}{4}$ unc. superne furcatis rariùs trifidis stigmatibus erosis saturatioribus, seminibus e minimis rotundatis vel subangulatè compressis pallidè rufis hilo apiculato raphe ad chalazam valde prominente. Obs. *In* specioso *antheræ aureæ triplo ferè filamentis longiores, fil. alba, tubus purpurascens, limbi basis extus saturatè purpurascens intus immaculata, stylus erectior, tunica præcipua tenuis neque annulo ad basim persistente duro, foliac. exter. medio circ. cormo affixa, semina obscurè rufo-brunnea superficie quasi velutinâ hilo apiculato raphe et chalazâ inconspicuis.*—W. H.

127. CROCUS nubigĕna. *Herbert.*

Crocus nubigena; *nisi potiùs C. nubigena, v. Troicus; adjectis v. 2. Sibthorpianus ex ins. Cretâ tunicis obsoletis tenuibus rectè (et forsan v. 3. lævigatus duris squammæformiter) incisis; quod, his minùs cognitis, neque negare neque affirmare ausim. Cormi basis in speciminibus C. Sibthorpiani caret; annulus in icone Boryano C. lævigati et in spec. Sibthorpiano deest, sed curatiùs inquirendum est; a C. Tournefortiano, a me non viso, certè distinguendus*) cormi tun. vaginaceâ interiore membranaceâ tenui, basi annulatè circumscissâ, annulo duro persistente fibris aculeiformibus ciliato, foliaceâ exteriore membranaceâ durâ intus nitidâ prope basim affixâ, foliaceis interioribus obsoletis basi gracili circum-bracteatâ, bracteis tunicarum fragmenta apiculata mentientibus, foliis circiter 4,

scapo nudo, germine vix subterraneo, bracteâ loratâ spatham æquante, tubo vix longiore superne (*in sicco, perianthium vivum non vidi*) cœruleo-purpureo, petalis ad basim sepalis totâ longitudine medio purpureis marginem versùs et superne pallidis, fauce intus luteâ, filamentis antheras æquantibus luteis; stylo superne subcoccineo lobis tenuibus simplicibus antheras subæquantibus vel parum superantibus. *In ipso ferè Gargari cacumine m. Martio florentem legit dom. Lander cujus operâ benevolâ cormi apud me vivi sunt.*—W. H.

128. CROCUS lagenæflorus; *var.* Hæmicus. *Herbert.*

rocus lagenæflorus; v. 8. Hæmicus; (*Olivierano proximus*) c. tun. vaginaceâ interiore lævi prope basim affixâ inferne sub lente fibris parallelis compactâ, proximâ exteriore tenui fibris paucis parallelis, inter quas zona radicalis, foliaceâ interiore lævi non sulcatâ fibris intus parallelis paucioribus, perianthio aureo. *In monte Hæmo prope Adrianopolim. Vivos a dom. Cartwright accepi, nondum floridos.*

129. CROCUS lagenæflorus; *var.* Landerianus. *Herbert.*

——— v. 9. Landerianus; c. t. vag. interiore superne membranaceâ inferne fibris parallelis manifestè compactâ, proximâ ext. tenui fibris paucis, foliaceâ exteriore summo cormo affixâ curvè sulcatâ, spathâ triunciali ebracteatâ, perianthio aureo vel flavescente. Perianthium vivum non vidi. Ex Kurchumlu Tépé in Troade vivos a dom. Lander accepi. Obs. Semina in lagenæfloris rugosè oblongata pallidè badia subpurascentia sunt; æstate recenti intempestâ capsula mihi una seminibus albis exstitit, unde varietatum spem aliquam præsumo.—*W. H.*

130. CROCUS nivigena. *Herbert.*

Crocus nivigena; (*nisi potiùs, quod vix credo, C. nivigena, v. Odessicus; adjecto v.* 2. *Sieberiano ex summo Taygeto et Cretæ montibus, certè inter crocos proximo*) c. tun. vaginaceis tenuibus fugacibus fibris infirmis parallelis, in obsoletis inferne demum liberis, tunicâ præcipuâ (i. e. ni fallor foliaceâ exteriore) fibris reticulatis non cribrosis imo ferè cormo affixâ, basi cum foliaceâ proximâ (nescio an semper) connatâ, foliis angustis; perianthio (*a me non viso*) albo sepalis interdum extus striatis. In regione Steppes dictâ prope Odessam nive recenter fusâ m. Febr. a dom. Yeames lectus; cormi apud me vivi sunt operâ benevolâ dom. Cartwright et Yeames.—*W. H.*

131. CROCUS Cartwrightianus. *Herbert.*

Crocus Cartwrightianus; (*nisi potius, C. Pallasiano non satis cognito, C. Pallasianus v. Cartwrightianus consendus sit, certè Pallasiano proximus*) c. tun. omnibus tenuiter membranaceis fibris extus superne subtiliter

reticulatis, obsoletis demum inferne parallelo-fibrosis, vaginaceis circ. quinque, duâbus inter quas zona radicalis est prope basim affixis, tertiâ aliquantum supra, proximâ interiore medio cormi affixâ et duâbus foliaceis proximis basi spiraliter (nescio an semper) connexâ, *foliaceâ* exteriore ¼ unc. infra apicem, tertiâ et quartâ a vaginaceis basi inter se connatis, quintâ basi semicirculari, foliis angustis plùs minùs semilineam latis margine reflexo et costâ dorsali densè minutè ciliatis canali vix albescente ortu proteranthiis seriùs explicatis, scapo involucrato involucro bifloro spathis hyalinis parum breviore, spathæ bracteâ acutâ tubum involvente non tubatâ spatham æquante, germine albicante, tubo sesquiunciam exserto pallido, limbo albo venis intus ad petalorum basim saturatè alies dilutiùs purpureis, fauce extus nebulosè subpurpurascente demum pallidâ intus albâ, barbâ albâ petalinâ, sepalorum basi lævi, filamentis albis lævibus ¼ unc. fauci ipsi insertis, antheris aureis ultra ¾ unc. stylo saturatè coccineo lobis usque ad faucem tubi ferè divisis superne crassioribus, stigmatibus breviter apice incisis. *Flore autumnali, ex insulâ Teno a dom. Cartwright missus; apud me unus foco calefactus m. Nov. floruit; cæteri forsitan foliis (more C. Imperatonii, in Italiâ ferè hiemalis) autumnalibus verni evenient.*—W. H.

132. CROCORUM SYNOPSI

Addenda quædam et Corrigenda.

C. chrysanthus; *pro* Prope Byzantium *lege* In Roumeliâ.

C. speciosus; *post* spathâ occultâ *insere* 1-2-florâ, *pro* barbatâ *lege* subbarbatâ, *post Tifflim adde* tubo et fauce extus pallidioribus, *post Transylvaniâ adde* fauce intus læviore, *post* 3 *Laxior;* ib. *insere* v. *Ibericus*, Tenore cat. hort. Neap.

C. Sibthorpianus; *dele* (nisi sit reverâ Tournefortianus autum. var.)

C. lagenæflorus, var. 6. luteus; *adde* c. tun. vag. interiore conspicuè et confertim parallelo-fibrosâ proximâ ext. basi tantum durâ persistente inter quas zona radicalis, foliaceâ exteriore lævi sulcatâ supra medium affixâ.

C. reticulatus; *ita corrige*, c. tun. vaginaceâ interiore tenui depereunte fibris ad basim duris parallelis aculeiformiter persistentibus, foliaceis reticulatis exteriore demum cribrosâ prope basim affixâ, proximâ sæpius supra rariùs infra medium, cæteris in vertice, zonâ radicali inter t. vag. et foliac. sitâ.

Var. 5. albicans; perianthio subalbo sepalis extus purpurâ striatis. *Vix vivos, prope Odessam inventos, misit dom. I. Cartwright.*

C. Gargaricus; c. tun. præcipuâ (vaginaceâ, puto, interiore) fibris superne subtiliter reticulatis inferne parallelis prope basim affixâ dudum persistente et demum cribrosâ, interioribus ipso cormi vertice parvis inconspicuis, nullarum basibus, ut in reticulato, disruptè persistentibus; seminibus minimis subrotundis dilutè badiis non rugosis, chalazâ circulari planâ obscuriore, raphe et hilo inconspicuis pallidis. *Vivos a dom. Lander accepi.*

C. serotinus; *post* foliac. extus membranaceâ *insere* superne sulcatâ.

P. 33, art. 27, *pro* fibros liberos *lege* fibras liberas.

C. sativus; *post* foliac. apice setosis exter. inf. *pro* basim *lege* medium.

Vernus; Var. 4. Alpinus; *adde In Alpe Wangen, limbo albo tubo purpureo, mense Junio floret.*

Subjunge Var. 6. Lusitanicus; mihi ignotus. *In erectioribus montosis Interamniæ in Herminio, et alibi in Beirâ; fl. Febr. et Mart.* Brotero Fl. L.

Observ. Zonæ radicalis situs in speciebus diversis variat. In lagenæfloris omnibus, et in verno, cultis etiam ac validissimis, zona rad. semper inter vagin. interiorem et proximam ext. In bifloro, culto et validissimo, inter tertiam et quartam a foliaceis; in pusillo tunicæ vaginaceæ annulatæ pauciores sunt et zona radicalis, ut in specioso quoque, inter secundam et tertiam a foliaceis; in sativo inter secundam et tertiam ab ipsâ basi, in reticulato inter vaginaceam inter. et foliac. exter. est.—*W. H.*

133. De SISYRINCHIIS spuriis tentamina.

Obstat tentamini species tot diversas vivas adquirendi, adquisitas colendi, floresque ita fugaces in sicco accuratè perspiciendi difficultas, præcipuè in plantis inter Sisyrinchium et Tigridiam positis, ubi maximè appropinquando, resiliendo, vias tritas vitando, ludit natura. Ita igitur laborandum est, ut plantarum vix satis cognitarum phalanges vel pro Iridacearum generibus, vel pro generis cujusdam, ubi affines cœteræ pleniùs fuerint investigatæ, stare possint sectionibus.

Sisyrinchium; Linn. Syst. *specie in edit. primâ unicâ, Bermudianâ scilicet; in herb. flore cœruleo, foliis et caule gracillimis, neque apud nos cultâ.* "Gynandria triandria. Spatha universalis anceps diphylla valvulis compressis carinatis acuminatis. Petala sex oblonga obovato cum acumine erecto-patentia plana. Fil. 3 *brevissima* e tunicâ styli. Antheræ inferne bifida stylo ad basim stigmatis (*non reverâ*) affixæ. Germen obovatum inferum. Stylus subulatus rectus corollâ brevior. Stigmata trifida erecta. Capsula obov. triq. triloc. triv. Semina plana subrotunda."—*Characterem Linnæi servando, ita rectiùs.*

134. SISYRINCHIUM. *Herbert.*

Involucrum diphyllum valvis compressis carinatis acuminatis. Perianthium sexfidum regulare basi vix annulare, laciniis acuminatis vel apiculatis planis. Filamenta brevissima columnâ stamineâ exserta. Antheræ breves inferne bifidæ erectæ stylo ad basim stigmatum adpressæ. Stylus subulatus rectus. Stigmata tenuia parvula. Germen obovatum. Capsula sphærica triloc. triv. Semina plura subrotunda parva, testâ durâ obscurâ. *Species veræ, mihi satis notæ.*

§ 1. Columnâ stamineâ cylindricâ.

1. Bermudianum; Linn. foliis et caule gracillimis, fl. limbo cœruleo parvulo.

2. Anceps. 3. Mucronatum. 4. Ramosum, mihi; caule ramoso, fl. laciniis saturatè purpureis breviter apiculatis. *Subvar.* 1. Chilense. 2. Nuttallianum.—5. Geniculatum, mihi; ex prov. Texas dicto, parva caule geniculato perianthio limbo lætè cœruleo. 6. Acuminatum, mihi; caule elongato ancipite ramoso, fl. pallidè cœruleis longè acuminatis stellâ intus saturatè cœruleo-radiatâ: et alia quædam.

7. Striatum (vel si mavis latifolium) marica striata quorundum limbo lutescente purpurâ mac. et striato ventricoso.

§ 2. Columnâ stamineâ ventricosâ.

1. Iridifolium. 2. Micranthum. 3. ? Pedunculatum.
4. Juncifolium ; cum aliis fl. subroseis confertis involucri valv. sup. valde elongatâ ex Chili præcipuè ; 5. Roseum, mihi ; involuc. 14-unc. fl. subsemunc.

135. PSITHYRĪSMA. *Herbert.*

Perianthium tubatum ; stigmata brevia patentia : cætera ut in Sisyrinchio.—*Species quædam, nunc Sisyrinchia auctorum.*

1. Narcissoides, Cavan. Odoratissimum, Lindl. Bot. Reg.
2. Flexuosum.

136. ECHTHRONĒMA. *Herbert.*

Stigmata longa patentia apice spathulatè conduplicato, filamenta elongata ex cylindro stamineo divaricantia; antheræ longæ ad basim bifidæ versatiles : cætera ut in Sisyrinchio.—*Species quædam, nunc Sisyrinchia auctorum.*

1. Californicum. 2. Tenuifolium. 3. Graminifolium. 4. Pumilum. 5. Maculatum. 6. Convolutum, planta Americana falsò Capensis dicta.

137. ERIPHILĒMA. *Herbert.*

Perianthium ut in Sisyrinchio. Filamenta recta subulata infra majora et connata. Stylus rectus stigmatibus simplicibus semipatentibus. Capsula subrotunda. Semina parva subrotunda.

1. Grandiflorum. *Sisyrinchium grandiflorum,* Bot. Reg.

138. CALYDORĔA. *Herbert.*

Perianthium dispar reflexo-petalum petalis multò minoribus basi annulatum, filamenta subulata erecta libera, antheræ suberectæ [acumine recurvo] germen oblongum, stylus superne patulo-trifidus, stigmata emarginato-spathulata fimbriata. [Radix bulbosa ; semina ex conjecturâ meâ angulata.] Genus inter Echthronema et Herbertiam.

1. Speciosa. *Sisyrinchium speciosum,* Bot. Mag. 53. 3544.

139. GLUMŌSIA. *Herbert.*

Mihi dubitanti vix satis ex sicco cognita. Involuc. univalve rigidum. Spathæ confertæ capitulum glumosum simulantes. Perianthium, ut in Sisyrinchio, regulare. Stylus filiformis simplex. Filamenta libera [usque ad basim ?] Antheræ basi bifidæ. Capsula subrotunda. Semina rotunda chalazâ apiculatâ pauca Sisyrinchio majora. Folia subrigida nervosa. Caulis costâ rotundâ alatus.

1. Palmifolium ; *Sisyrinchium palmifolium ;* Linn. herbar. *aliæque minùs notæ.*

W. H.

INDEX

TO THE

BOTANICAL REGISTER,

FOR THE YEARS 1838 TO 1843.

PART I.—SPECIES DESCRIBED.

		pl.	misc.
Abies Kutrow	1841	..	24
Abutilon striatum	1839	..	53
————	1841	..	16
——— vitifolium	1840	..	114
Acacia cultriformis	1838	..	62
——— cyanophylla	1839	..	64
——— cuneata	1839	..	74
——— platyptera	1841	..	10
——— biflora	1841	..	30
——— urophylla	1841	..	64
——— spectabilis	1843	46	53
Acanthophippium striatum	1838	..	68
Achimenes grandiflora	1842	..	59
——— hirsuta	1843	55	103
——— longiflora	1842	19	..
——— pedunculata	1842	31	..
——— rosea	1841	65	..
Acanthostachys strobilacea	1841	..	36
Acianthera punctata	1843	..	10
Aconitum ovatum	1840	..	118
Acriopsis picta	1843	..	105
Aerides Brookeii	1841	..	116
——— crispum	1842	55	..
——— virens	1843	..	48
Æonium cruentum	1841	61	..
Æschynanthus maculatus	1841	28	..
——— grandiflorus	1841	49	..
Æsculus Ohiotensis	1838	51	..
Ætheria occulta	1838	..	179
Aganisia pulchella	1839	..	65
————	1840	32	..
Agapanthus umbellatus var. maximus	1843	7	..
Agave saponaria	1838	..	141
————	1839	55	..
Allium cœruleum	1840	51	..
Alnus jorullensis	1840	..	52
Alstrœmeria Ligtu	1839	13	..
——— magnifica	1843	..	94
——— Chorillensis	1843	..	95
——— lineatiflora	1843	58	..
Amaryllis Banksiana	1842	11	16
Ammoniacum	1839	..	105
Ampelygonum chinense	1838	..	118
Amphicome arguta	1838	19	..
Amygdalus incana	1839	58	..
Anagallis alternifolia	1840	..	144
Anemone rivularis	1842	8	..
——— longiscapa	1842	8	..
Angræcum armeniacum	1839	..	100

		pl.	misc.
Angræcum Ashantense	1843	..	75
——— bibobum	1840	..	151
————	1841	35	..
——— gladiifolium	1840	68	..
——— brevifolium	1840	68	..
——— ornithorhynchum	1840	68	..
——— polystachyum	1840	68	..
——— tenue	1840	68	..
——— vesicatum	1843	..	9
Ania bicornis	1842	..	31
Anigozanthus flavida	1838	37	..
——— var. bicolor	1838	64	..
Anizanth, Plant's	1842	53	..
Aotus lanigera	1841	..	88
Aplotaxis albescens	1839	..	129
Aporum Leonis	1840	..	126
——— sinuatum	1841	..	3
——— cuspidatum	1841	..	7
Aquilegia glauca	1840	46	..
——— fragrans	1840	..	140
——— pubiflora	1840	..	141
Arbutus laurifolia	1839	67	..
Arctostaphylos nitida	1840	..	69
Argyreia festiva	1841	..	127
Arisæma macrospatha	1840	..	54
Aristolochia Gigas	1842	60	53
Armeria fasciculata	1841	21	17
Arpophyllum spicatum	1839	..	16
Arundina bambusæfolia	1841	..	5
——— densa	1842	38	26
Asafœtida	1839	..	106
Asagræa officinalis	1839	33	..
Aspasia epidendroides	1840	..	92
————	1842	..	18
Asteracantha longifolia	1839	..	117
Asterotrichion sidoides	1841	..	35
Aster cabulicus	1843	..	89
Astragalus strobiliferus	1840	..	71
Azalea altaclerensis	1842	27	..
——— double red Indian	1842	56	..
Azara integrifolia	1840	..	10
Babiana ringens	1838	..	19
Babingtonia Camphorosmæ	1842	10	..
Bæckea Camphorosmæ	1841	..	140
Banisteria tenuis	1838	..	131
Barbacenia squamata	1843	..	96
Barkeria elegans	1840	..	57
——— Lindleyana	1842	..	5
——— spectabilis	1842	..	45
Barnadesia rosea	1843	29	..

		pl.	misc.
Batatas betacea	1839	..	152
——— ———	1840	56	..
——— bonariensis	1838	..	99
Bauhinia corymbosa	1839	47	..
Beatonia purpurea	1842	..	84
——— atrata	1843	..	114
——— curvata	1843	..	115
Becium bicolor	1842	..	44
——— ———	1843	15	..
Begonia crassicaulis	1842	44	21
——— diversifolia	1840	..	44
——— punctata	1841	..	34
——— incana	1841	..	73
——— papillosa	1841	..	74
——— vitifolia	1842	..	20
Berberis empetrifolia	1840	27	..
——— trifoliata	1841	..	149
——— tenuifolia	1838	..	121
——— coriaria	1841	46	..
——— umbellata	1842	..	42
——— pallida	1843	..	28
Bessera elegans	1839	34	..
Betula Bhojpattra	1840	..	169
Bifrenaria longicornis	1838	..	177
——— inodora	1843	..	63
Bignonia picta	1842	45	..
——— Tweediana	1840	45	..
Billardiera daphnoides	1840	..	38
Blandfordia marginata	1842	..	93
Bletia havanensis	1838	..	35
——— Shepherdii	1838	..	73
——— secunda	1840	..	120
Bolbophyllum cupreum	1838	..	183
——— clandestinum	1841	..	166
——— calamarium	1843	..	109
——— adenopetalum	1842	..	95
——— flavidum	1840	..	195
——— imbricatum	1841	..	65
——— fuscum	1839	..	5
——— limbatum	1840	..	171
——— sordidum	1840	..	217
——— umbellatum	1838	..	102
——— setigerum	1838	..	24
Bomarea acutifolia	1842	..	91
——— Macleanica	1842	..	85
——— subglobosa	1842	..	86
——— punctata	1842	..	87
——— uncifolia	1842	..	88
——— Turneriana	1842	..	89
——— variabilis	1842	..	90
Boronia crenulata	1838	12	..
——— triphylla	1841	47	..
——— mollis	1841	47	..
——— anethifolia	1841	47	..
——— falcifolia	1841	47	..
——— dichotoma	1841	47	..
——— ovata	1841	47	..
Bossiæa disticha	1841	55	67
——— paucifolia	1841	..	108
——— ———	1843	63	50
——— eriocarpa	1843	..	51
Bouvardia splendens	1840	37	..
Brachycome iberidifolia	1840	..	148
——— ———	1841	9	..
Brasavola angustata	1838	..	67
——— Martiana	1839	5	..
——— glauca	1839	..	67
Brasavola glauca	1840	44	89
——— grandiflora	1839	..	14
——— venosa	1840	39	24
Brassia cochleata	1840	..	37
——— brachiata	1843	..	2
——— Lawrenceana	1841	18	6
——— macrostachya	1838	..	31
——— verrucosa	1840	..	66
Bravoa geminiflora	1838	..	98
Bromelia discolor	1838	..	85
Bromheadia palustris	1841	..	184
Brongniartia sericea	1843	..	93
Broughtonia aurea	1840	..	22
Brownæa grandiceps	1841	30	..
Bryobium pubescens	1838	..	145
Bulbine suavis	1838	..	78
Burlingtonia maculata	1839	44	..
——— rigida	1841	..	41
Calandrinia discolor	1839	4	..
Calanthe discolor	1840	55	..
——— ———	1838	..	32
——— furcata	1838	..	34
——— Masuca	1842	..	52
——— bicolor	1838	..	38
——— veratrifolia	1839	..	39
Calathea villosa	1843	..	87
Calectasia cyanea	1841	..	13
Callipsyche eucrosioides	1842	..	49
Callistemon microstachyum	1838	7	..
Calostemma carneum	1840	26	..
——— luteum	1840	19	..
Calystegia sepium	1838	..	104
Calydorea	1843	..	138
Campanula grandis	1842	..	41
——— Lœflingii	1842	..	64
——— ———	1843	19	..
Candollea tetrandra	1842	..	39
——— ———	1843	50	..
Carpesium pubescens	1838	..	123
Catasetum cornutum	1840	..	182
——— ———	1841	5	..
——— callosum	1840	..	183
——— ———	1841	5	..
——— deltoideum	1840	..	157
——— maculatum	1840	62	..
——— ———	1840	..	99
——— Milleri	1838	..	149
——— Naso	1843	..	111
——— poriferum	1838	..	164
——— abruptum	1842	..	24
——— atratum	1838	63	114
——— globiflorum	1842	..	48
——— proboscideum	1839	..	140
——— ———	1841	5	..
——— planiceps	1843	9	..
——— longifolium	1839	..	154
——— laminatum	1841	5	..
——— lanciferum	1841	5	..
——— discolor	1841	..	12
——— fuliginosum	1841	..	168
——— roseo-album	1840	..	135
——— spinosum	1840	..	136
——— Russellianum	1840	..	19
——— saccatum	1840	..	179
——— Trulla	1840	..	176
——— ———	1841	34	..
——— Wailesii	1843	..	1

		pl.	misc.
Catha paniculata	1843	..	45
Cattleya Aclandiæ	1840	48	..
——— Arembergii	1843	..	123
——— bicolor	1838	..	148
——— granulosa	1842	1	..
——— Perrinii	1838	2	..
——— Mossiæ	1840	58	..
——— Skinneri	1840	..	83
——— superba	1839	..	47
Ceanothus pallidus	1840	20	..
——— divaricatus	1843	..	55
Centaurea pulchra	1839	..	84
——— ———	1840	28	..
Centranthera punctata	1843	..	11
Centradenia rosea	1843	20	..
Centropogon cordifolius	1841	..	192
Cereus leucanthus	1840	13	..
——— speciosissimus, var.	1842	49	..
——— biformis	1843	..	66
Chænanthe Barkeri	1838	..	60
Cheiranthus ochroleucus	1840	..	29
Cheirostylis parvifolia	1839	..	20
Chorozema cordatum	1838	10	..
——— spectabile	1841	45	66
——— varium	1839	49	63
Chysis lævis	1840	..	130
——— bractescens	1840	..	131
——— ———	1841	23	..
Cirrhea saccata	1836	..	121
Cirrhopetalum cornutum	1838	..	138
——— chinense	1842	..	29
——— ———	1843	..	49
——— cæspitosum	1838	..	53
——— Macræi	1841	..	105
——— Medusæ	1842	12	..
——— maculosum	1841	..	173
——— Thouarsii	1838	11	..
——— nutans	1839	..	118
——— Wallichii	1839	..	119
——— fimbriatum	1839	..	120
——— picturatum	1840	..	106
——— auratum	1840	..	107
——— ———	1843	..	61
——— vaginatum	1840	..	173
——— ———	1842	12	..
Citrus deliciosa	1841	..	44
Cleisostoma latifolium	1840	..	127
——— dealbatum	1843	..	5
——— maculosum	1840	..	67
——— tridentatum	1838	..	46
——— roseum	1838	..	150
Clematis florida, var. bicolor	1838	25	..
——— lathyrifolia	1839	61	..
——— montana	1840	53	..
Cleome lutea	1840	..	117
——— ———	1841	67	..
Clethra mexicana	1840	..	51
——— quercifolia	1842	23	..
Clerodendron fragrans	1838	41	..
——— splendens	1841	..	177
——— squamatum	1842	7	..
Clianthus carneus	1841	51	9
Clitanthus humilis	1839	..	141
Clowesia rosea	1843	39	39
Cobæa stipularis	1840	..	50
——— ———	1841	25	..
Coburgia humilis	1842	46	..

		pl.	misc.
Coburgia versicolor	1842	66	..
Codonopsis lurida	1839	..	126
Cœlia Bauerana	1842	36	..
——— macrostachya	1842	36	..
Cœlogyne fimbriata	1838	..	172
——— prolifera	1838	..	75
——— testacea	1842	..	34
——— Wallichiana	1838	..	167
——— ———	1840	24	..
——— ovalis	1838	..	171
——— Cumingii	1840	..	178
——— ———	1840	29	..
——— coronaria	1841	..	178
——— flaccida	1841	31	..
——— cristata	1841	57	54
——— elata	1839	..	151
——— oculata	1839	..	25
Colea floribunda	1841	19	..
Columnea Schiedeana	1841	60	..
Comarostaphylis arbutoides	1843	30	..
Comparettia coccinea	1838	68	..
——— rosea	1840	..	186
Commelina orchioides	1838	..	96
Conostylis juncea	1839	..	73
Convolvulus floridus	1840	..	199
——— verrucipes	1841	..	45
——— scoparius	1841	43	152
Cornus grandis	1840	..	59
Corvisartia indica	1842	..	61
Coryanthes speciosa alba	1840	..	75
Corycium orobanchoides	1838	45	..
Cosmus scabiosoides	1838	15	..
Cotoneaster denticulata	1840	..	58
Cotyledon cristatum	1839	..	134
Crinum brachynema	1842	..	28
Crocorum synopsis	1843	..	132
Crocus Cartwrightianus	1843	..	131
——— nivigena	1843	..	130
——— landerianus	1843	..	120
——— lagenæflorus Hæmicus	1843	..	128
——— nubigena	1843	..	127
——— insularis	1843	21	..
——— pulchellus	1843	..	126
——— speciosus	1839	40	..
Crotalaria undulata	1840	..	32
Crucianella stylosa	1838	55	..
Cryptochilus sanguineus	1838	23	..
Cryptosanus scriptus	1843	..	122
Cupressus thurifera	1839	..	101
Cyclamen neapolitanum	1838	49	..
Cyclosia maculata	1839	..	7
Cyclogyne canescens	1840	..	68
Cycnoches ventricosum	1840	..	98
——— ventricosum & Egertonianum	1843	..	117
——— maculatum	1840	..	8
——— pentadactylon	1843	22	26
Cymbidium iridifolium	1839	..	37
——— bicolor	1839	..	69
——— madidum	1840	..	6
——— pendulum	1840	25	..
——— var. brevilabre	1842	..	67
——— chloranthum	1843	..	102
——— pubescens	1840	..	177
——— ———	1841	38	..
——— virescens	1838	..	59

		pl.	misc.
Cynoglossum anchusoides	1842	14	..
—— cœlestinum	1839	36	..
—— glochidiatum	1839	..	128
—— ——	1841	15	..
—— grandiflorum	1838	..	127
—— longiflorum	1840	50	..
Cypella plumbea	1838	..	130
Cypripedium barbatum	1841	..	110
—— ——	1842	17	..
Cyrtochilum mystacinum	1838	..	38
—— ——	1839	62	..
—— stellatum	1839	..	54
—— graminifolium	1841	..	180
—— filipes	1841	59	72
—— maculatum	1838	44	39
—— ——	1840	..	86
—— ——	1841	..	87
—— ——	1841	..	14
Cyrtopodium Andersonii	1841	8	49
—— cristatum	1841	8	..
—— Wilmorei	1841	8	..
Cytisus Weldenii	1839	..	122
—— ——	1843	40	..
—— ——	1842	..	38
Dahlia glabrata	1840	29	..
Daphne australis	1838	56	..
Daubenya fulva	1839	53	..
Delphinium laxiflorum	1838	30	..
—— intermedium, var. sapphirinum	1838	52	..
—— intermedium, var. palmatifidum	1838	38	..
—— decorum	1840	64	..
Dendrobium aciculare	1840	..	188
—— aduncum	1842	..	62
—— aqueum	1843	54	6
—— calcaratum	1840	..	219
—— cucumerinum	1842	..	63
—— ——	1843	37	..
—— denudans	1838	..	156
—— candidum	1838	..	54
—— discolor	1841	52	50
—— ——	1842	..	6
—— secundum	1841	..	169
—— junceum	1842	..	11
—— formosum	1838	..	86
—— formosum	1839	64	..
—— stuposum	1838	..	94
—— scopa	1842	..	55
—— sulcatum	1838	65	..
—— sanguinolentum	1842	..	73
—— ——	1843	6	..
—— bicameratum	1839	..	85*
—— compressum	1842	..	76
—— Heyneanum	1839	..	41
—— macrophyllum	1839	..	46
—— ——	1842	..	94
—— Paxtoni	1839	..	56
—— aureum, pallidum	1839	20	..
—— crumenatum	1839	22	..
—— Jenkinsii	1839	37	..
—— linguæforme	1839	..	26
—— teretifolium	1839	..	29
—— tetragonum	1839	..	30
—— ——	1841	..	8
—— tortile	1839	..	31
Dendrobium pygmæum	1839	..	32
—— Cambridgeanum	1841	..	171
—— acerosum	1841	..	86
—— moschatum	1841	..	15
—— calamiforme	1841	..	26
—— excisum	1841	..	165
—— elongatum	1839	..	33
—— ——	1841	..	53
—— Ruckeri	1843	60	38
—— pugioniforme	1839	..	34
—— planibulbe	1843	..	70
—— crassulæfolium	1839	..	35
—— complanatum	1839	..	36
—— herbaceum	1840	..	153
—— longicolle	1840	..	172
—— plicatile	1840	..	7
—— revolutum	1840	..	110
—— rhombeum	1843	17	..
—— teres	1840	..	111
—— taurinum	1843	28	..
—— gemellum	1840	..	192
Dendrochilum filiforme	1840	..	113
—— glumaceum	1841	..	58
—— latifolium	1843	..	74
Deutzia corymbosa	1839	..	49
—— ——	1840	5	..
Dianthus Bisignani	1838	29	..
—— ferrugineus	1839	15	..
Dichæa ochracea	1839	..	71
Dicrypta discolor	1839	..	145
Dienia cordata	1838	..	164
Dinema paleaceum	1840	..	112
Dion edule	1843	..	82
Diplolæna Dampieri	1841	64	..
Diplopeltis Hugelii	1839	69	70
Drymonia bicolor	1838	4	..
—— punctata	1842	..	77
Duvaua longifolia	1843	59	..
Dyckia altissima	1841	..	183
Earina suaveolens	1843	..	88
Echeandia terniflora	1839	..	144
Echeveria acutifolia	1842	29	..
—— secunda	1838	..	112
—— ——	1840	57	..
—— lurida	1841	1	..
—— rosea	1842	22	..
Echinacea Dicksoni	1838	27	..
Echinocactus Ottonis	1838	42	..
—— Eyriesii, var. glaucus	1838	31	..
—— Scopa	1839	24	..
Echthronema	1843	..	136
Echites atropurpurea	1843	27	..
Echium petræum	1843	26	..
Elæagnus parvifolia	1843	51	..
Eleutherine anomala	1843	57	..
Elisena longipetala	1838	..	79
Encyclia, note upon	1839	..	13
Entelea palmata	1838	..	126
Epacris impressa, var.	1839	19	..
Epidendrum pictum	1838	..	43
—— cubense	1843	..	24
—— pachyanthum	1838	..	42
—— papillosum	1838	..	8
—— collare	1843	..	85
—— Pastoris	1838	..	3

		pl.	misc.
Epidendrum polyanthum	1842	..	2
——— Schomburgkii	1838	53	16
——— cinnabarinum	1842	25	..
——— smaragdinum	1838	..	44
——— calocheilum	1841	..	181
——— latilabrum	1841	..	163
——— ———	1842	..	70
——— bisetum	1841	..	148
——— Grahami	1841	..	145
——— tripunctatum	1841	..	143
——— auritum	1843	..	4
——— articulatum	1841	..	127
——— pterocarpum	1841	..	128
——— radiatum	1841	..	123
——— raniferum	1841	..	122
——— ———	1842	42	..
——— virgatum	1841	..	189
——— gladiatum	1841	..	20
——— glutinosum	1843	..	124
——— viviparum	1841	..	27
——— miserum	1841	..	62
——— lamellatum	1843	..	60
——— limbatum	1843	..	104
——— leiobulbon	1841	..	63
——— microphyllum	1841	..	71
——— hastatum	1841	..	90
——— aciculare	1841	..	98
——— lacertinum	1841	..	109
——— leucochilum	1843	..	120
——— phœniceum	1841	..	120
——— selligerum	1838	..	66
——— tibicinis	1838	..	12
——— tessellatum	1838	..	9
——— tridactylum	1838	..	81
——— varicosum	1838	..	37
——— vesicatum	1838	..	89
——— aurantiacum	1838	..	11
——— ———	1840	..	82
——— aspersum	1838	..	36
——— altissimum	1838	..	61
——— Boothianum	1838	..	7
——— cucullatum	1838	..	47
——— chloranthum	1838	..	28
——— cauliflorum	1838	..	82
——— calamarium	1838	..	163
——— dichotomum	1838	..	146
——— diotum	1843	..	97
——— dichromum	1843	..	119
——— equitans	1838	..	76
——— fucatum	1838	..	17
——— ionosmum	1838	..	87
——— longicolle	1838	..	49
——— lacerum	1838	..	18
——— lividum	1838	..	91
——— ochraceum	1838	26	15
——— Ovulum	1843	..	71
——— variegatum	1839	11	..
——— glumaceum	1839	..	50
——— ———	1840	6	..
——— Candollei	1839	..	77
——— inversum	1839	..	135
——— uniflorum	1839	..	13
——— Skinneri	1840	..	81
——— incumbens	1840	..	84
——— machrochilum	1840	..	85
——— Stamfordianum	1840	..	88
——— rhizophorum	1840	..	91
Epidendrum rhizophorum	1838	..	10
——— rubrocinctum	1843	..	20
——— arbuscula	1843	..	54
——— aromaticum	1840	..	93
——— bractescens	1840	..	122
——— densiflorum	1840	..	134
——— crispatum	1840	..	85
——— lancifolium	1840	..	152
——— ———	1842	50	..
——— falcatum	1840	..	20
——— Parkinsonianum	1840	..	20
——— glaucum	1840	..	56
——— vitellinum	1840	..	35
——— stenopetalum	1840	..	49
——— Trinitatis	1840	..	128
——— viscidum	1840	..	190
Epimedium violaceum	1840	43	..
Epiphora pubescens	1840	..	143
Eria clavicaulis	1840	..	220
—— acutifolia	1842	..	32
—— bipunctata	1841	..	179
—— ferruginea	1839	35	..
—— bractescens	1841	..	46
—— longilabris	1841	..	69
—— armeniaca	1841	42	70
—— pulchella	1841	..	106
—— profusa	1842	..	3
—— floribunda	1843	..	56
—— multiflora	1843	..	72
—— polyura	1841	..	114
—— ———	1842	32	..
—— mucronata	1842	..	27
—— convallarioides	1841	62	121
—— paniculata	1842	..	33
—— pannea	1842	..	79
—— nutans	1840	..	196
—— planicaulis	1840	..	4
—— pumila	1838	..	147
—— velutina	1840	..	209
Erica chloroloma	1838	17	..
Erigeron squarrosum	1841	..	92
Eriphilema	1843	..	137
Erysimum Perofskianum	1839	..	79
Erythrochiton Brasiliensis	1843	47	..
Eucalyptus calophylla	1841	..	157
Eulophia squalida	1841	..	164
Euphorbia rigida	1838	43	..
——— veneta	1838	6	..
Eurybia glutinosa	1839	..	112
——— chrysotricha	1841	..	47
Euthales macrophylla	1840	..	119
——— ———	1841	3	..
Eysenhardtia amorphoides	1839	..	55
Fabiana imbricata	1839	50	..
Fernandezia lunifera	1839	..	147
Friesia peduncularis	1843	..	108
Fuchsia fulgens	1838	1	..
——— cylindracea	1838	66	97
——— cordifolia	1841	70	117
——— radicans	1841	66	167
——— corymbiflora	1840	70	202
——— splendens	1842	67	..
——— Standish's	1840	2	..
Funkia Sieboldi	1839	50	..
Galbanum	1839	..	107
Galeandra Baueri	1840	49	..
Gardoquia betonicoides	1838	..	159

		pl.	misc.
Garrya laurifolia	1840	..	53
Genista bracteolata	1840	23	..
Geranium rubifolium	1840	67	..
——— erianthum	1841	..	91
——— ———	1842	52	..
——— tuberosum	1839	10	..
Gesneria reflexa	1840	..	39
——— Suttoni, white var.	1842	..	40
——— longifolia	1841	..	190
——— ———	1842	40	..
——— discolor	1841	63	96
——— Zebrina	1842	16	..
Gladiolus crispiflorus	1842	..	81
——— caucasicus	1842	..	82
——— æquinoctialis	1842	..	97
——— oppositiflorus	1842	..	98
——— splendens	1843	..	61
Glaucium rubrum	1839	..	78
Glossocomia ovata	1842	3	..
Glumosia	1843	..	139
Godetia albescens	1841	..	131
——— ———	1842	9	..
——— grandiflora	1841	..	132
——— ———	1842	61	..
Gompholobium versicolor	1839	43	62
Gonatanthus sarmentosus	1841	..	83
Gongora fulva	1839	51	..
——— bufonia	1841	2	..
——— vitellina	1841	..	4
——— maculata	1841	..	101
——— nigrita	1839	..	86
——— truncata	1843	..	52
Goodyera rubicunda	1839	..	92
Govenia Gardneri	1839	..	51
——— lagenophora	1839	..	66
——— liliacea	1838	13	..
——— fasciata	1843	..	107
Grammatophyllum multiflorum	1838	..	80
———	1839	65	..
——— var. tigrinum	1842	69	..
Grevillea Thielemanniana	1839	..	72
Grobya galeata	1840	..	197
Guaiacum officinale	1839	9	..
Gunnia picta	1838	..	77
Habranthus pratensis	1842	35	..
Habrothamnus fasciculatus	1843	..	73
Hæmanthus magnificus	1841	..	153
Hakea ruscifolia	1841	..	158
Hardenbergia digitata	1840	60	142
Hartwegia purpurea	1840	..	96
——— ——— var. angustifolia	1843	..	58
Heimia salicifolia	1841	60	..
Helichrysum scorpioides	1838	..	84
Helleborus lividus	1848	54	..
——— orientalis	1841	..	112
——— ———	1842	34	..
——— olympicus	1841	..	113
——— ———	1842	58	..
Hemiandra emarginata	1841	..	156
Herbertia Drummondiana	1842	..	83
Heteropteris undulata	1841	..	48
Hexadesmia fasciculata	1842	..	46
——— ———	1843	..	21
Hexopia crucigera	1840	..	90
Hibbertia perfoliata	1841	..	94
——— ———	1843	64	..
Hibiscus Cameroni	1840	..	31
——— Wrayæ	1840	69	149
Higginsia mexicana	1841	..	137
Hippeastrum organense, *var.* compressum	1842	..	35
Hoitzia mexicana	1838	..	21
Hormidium	1839	..	13
Hoteia japonica	1839	..	133
Houlletia vittata	1841	69	100
Hovea crispa	1839	..	19
——— pungens	1839	..	28
——— Manglesii	1838	62	..
——— racemulosa	1842	..	36
——— ———	1843	4	..
Hoya coriacea	1839	18	..
——— ———	1840	..	1
Huntleya Meleagris	1838	..	20
——— ———	1839	14	..
——— violacea	1839	..	17
Hydromestus maculatus	1843	..	46
Hydrotænia Meleagris	1838	..	128
——— ———	1842	39	..
Hymenocallis Harrisiana	1840	..	63
——— panamensis	1841	..	146
——— rotata	1840	..	55
——— Skinneriana	1843	..	59
Hypocalymna robustum	1843	8	..
——— ——— angustifolium	1843	..	78
Impatiens candida	1840	..	204
——— ———	1841	20	..
——— rosea	1841	27	22
——— glanduligera	1840	22	..
——— macrochila	1840	8	..
——— tricornis	1840	9	..
Indigofera Dosua	1842	57	..
——— stachyodes	1843	14	..
Inga Harrisii	1839	41	..
Ionopsis teres	1838	..	181
Ipomœa ficifolia	1840	..	221
——— ———	1841	12	..
——— cymosa	1843	24	..
——— longifolia	1839	..	124
——— ———	1840	21	..
——— batatoides	1841	36	23
——— pendula	1840	..	201
——— Purga	1839	..	136
——— tyrianthina	1838	..	162
——— Schiedeana	1838	..	22
Iris deflexa	1840	..	42
——— ———	1840	..	62
——— fragrans	1840	1	..
Ismene deflexa	1839	..	142
——— virescens	1841	12	..
Isochilus lividum	1839	..	45
——— grandiflorum	1841	1	..
——— graminifolium	1841	1	..
Isopogon roseus	1842	..	37
Isotropis striata	1839	..	61
Jasminum caudatum	1842	36	..
——— subulatum	1842	..	58
Juniperus tetragona	1839	..	102
——— flaccida	1839	..	103
——— mexicana	1839	..	104
——— squamosa	1839	..	189
Lælia furfuracea	1839	26	..
——— autumnalis	1839	27	..
——— albida	1839	54	4

		pl.	misc.
Lælia albida	1843	..	16
—— flava	1839	..	143
—— ——	1842	62	..
—— majalis	1839	..	42
—— caulescens	1841	1	..
—— acuminata	1841	24	42
—— peduncularis	1842	..	10
—— superbiens	1840	..	87
—— rubescens	1840	41	25
Lacæna bicolor	1843	..	101
Lalage hoveæfolia	1841	..	75
Lathyrus Armitageanus	1840	..	14
Lavatera maritima	1838	..	140
Lemonia spectabilis	1840	59	..
Leochilus carinatus	1842	..	22
—— cochlearis	1842	..	22
—— oncidioides	1842	..	22
Leptodermis lanceolata	1839	..	131
Leschenaultia biloba	1842	2	..
Leycesteria formosa	1839	2	..
Lilium testaceum	1842	..	51
—— ——	1843	11	..
—— Thunbergianum	1839	38	..
Linaria delphinioides	1840	..	15
—— glandulifera	1841	..	51
—— venosa	1841	..	151
Lindenia rivalis	1841	..	130
Lindleya mespiloides	1843	..	83
Liparis pendula	1838	..	180
—— alata	1843	..	12
—— spathulata	1840	..	189
Lissanthe stellata	1840	..	2
—— ——	1840	..	13
—— verticillata	1840	..	26
Lissochilus parviflorus	1838	..	14
—— roseus	1843	..	37
Loasa lateritia	1838	22	..
Lobelia discolor	1840	..	211
—— pyramidalis	1841	..	170
—— subnuda	1840	..	211
—— fenestralis	1838	47	..
—— multiflora	1840	..	17
Lonicera diversifolia	1843	..	118
Lopezia lineata	1840	40	60
Luisia alpina	1838	..	101
Lupinus arboreus	1838	32	..
—— Hartwegii	1839	31	..
—— Barkeri	1839	56	..
—— bilineatus (note)	1839	56	..
—— mexicanus (note)	1839	56	..
—— leptocarpus	1840	38	..
Lycaste plana	1842	..	96
—— ——	1843	35	..
—— tetragona	1843	..	64
Lysimachia lobelioides	1841	..	150
—— ——	1842	6	..
—— spuria	1843	..	133
Macradenia mutica	1839	..	22
Malachadenia clavata	1839	..	110
Malaxis Parthoni	1840	..	214
Malva lucida	1839	..	130
—— mauritiana	1839	..	82
Mandevilla suaveolens	1840	7	..
Manglesia glabrata	1840	..	27
Marcetia excoriata	1843	31	..
Marianthus cœruleopunctatus	1841	..	15
Marica begonifolia	1838	61	..
Martynia fragrans	1840	..	206

		pl.	misc.
Martynia fragrans	1841	6	..
Masdevallia infracta	1838	..	64
—— floribunda	1843	..	112
—— cuprea	1843	..	125
Matthiola odoratissima	1839	25	..
—— maderensis	1841	..	97
Maxillaria Colleyi	1838	..	161
—— cruenta	1842	13	..
—— Rollissonii	1838	40	..
—— galeata	1843	..	13
—— aromatica	1842	13	..
—— vitellina	1838	..	116
—— ——	1839	12	..
—— porrecta	1838	..	173
—— macrophylla	1838	..	174
—— ——	1840	..	191
—— bractescens	1842	..	92
—— costata	1838	..	175
—— variabilis	1838	..	92
—— Brockelhurstiana	1841	..	28
—— candida	1841	..	59
—— Harrisoniæ	1841	..	168
—— placanthera	1841	..	103
—— jugosa	1841	..	104
—— barbata	1841	..	141
—— purpurascens	1841	..	142
—— madida	1838	..	74
—— Boothiana	1838	..	95
—— tenuifolia	1839	8	..
—— stapelioides	1839	17	..
—— xanthina (note)	1839	17	..
—— foveata	1839	..	2
—— acutifolia	1839	..	148
—— acutipetala	1843	..	36
—— lentiginosa	1839	..	93
—— aureofulva	1840	..	43
—— stenopetala	1840	..	43
—— cucullata	1840	12	..
—— rhombea	1840	12	..
—— Macleei	1840	..	155
—— Skinneri	1840	..	101
—— ——	1840	..	145
—— ——	1842	..	13
—— rugosa	1843	..	121
Medicago clypeata	1839	..	90
Medinilla erythrophylla	1838	..	158
Megaclinium oxypterum	1839	..	10
—— Bufo	1841	..	82
Microstylis excavata	1838	..	93
—— histionantha	1840	..	214
—— caulescens	1841	1	..
Miltonia candida	1838	..	29
—— —— *var.* grandiflora	1843	..	110
Mimosa marginata	1838	..	152
—— uruguensis	1842	33	..
Mina lobata	1842	..	9
—— ——	1842	24	..
Mirbelia speciosa	1841	58	..
Morina longifolia	1840	30	..
Mormodes buccinator	1840	..	9
—— buccinator, var	1841	..	191
—— pardinum	1838	..	176
—— ——	1839	..	7
—— lineatum	1841	..	107
—— ——	1842	43	..
—— luxatum	1842	..	66
—— luxatum	1843	33	..

		pl.	misc.
Mormodes aromaticum	1841	..	162
——— ———	1843	56	..
Morna nivea	1838	9	..
Morrenia odorata	1838	..	129
Mucuna pruriens	1838	18	..
Narcissi	1843	38	..
Mycaranthes obliqua	1840	..	184
Nemaconia gracilifolia	1839	..	15
Nemesia floribunda	1838	39	..
Nepeta salviæfolia	1839	..	123
Nicotiana rotundifolia	1838	..	110
Niphæa oblonga	1841	..	172
——— ———	1842	5	..
Notylia punctata	1838	..	166
——— pubescens	1842	..	72
——— aromatica	1841	..	77
——— incurva	1838	..	167
——— Barkeri	1838	..	168
——— tenuis	1838	..	169
——— micrantha	1838	..	170
Oberonia cylindrica	1840	..	23
——— miniata	1843	..	8
——— recurva	1839	..	8
——— Wightiana	1839	..	9
Octomeria gracilis	1838	..	55
——— grandiflora	1842	..	80
——— diaphana	1839	..	145
——— tridentata	1839	..	43
Odontoglossum Bictoniense	1840	66	..
——— constrictum	1843	..	25
——— stellatum	1841	..	25
——— Ehrenbergii	1841	..	85
——— pulchellum	1841	48	..
——— Clowesii	1839	..	153
——— citrosmum	1842	..	68
——— ———	1843	3	..
——— cordatum	1838	..	90
——— grande	1840	..	94
——— maculatum	1840	30	..
——— Rossii	1839	48	..
——— ———	1843	..	19
Œnothera fruticosa indica	1841	11	..
Olinia capensis	1840	..	212
——— acuminata	1841	..	135
——— cymosa	1841	..	136
Oncidium tetrapetalum	1838	..	56
——— candidum	1843	..	76
——— brachyphyllum	1842	4	..
——— confragosum	1838	..	92
——— cuneatum	1843	..	15
——— ascendens	1842	4	..
——— pulvinatum	1838	..	115
——— ———	1839	42	..
——— Forkelii	1843	..	14
——— Cebolleta	1842	4	..
——— pergameneum	1842	..	7
——— hians	1838	..	124
——— bicolor	1843	66	..
——— raniferum	1838	48	..
——— longifolium	1842	4	..
——— luridum guttatum	1839	16	..
——— Suttoni	1842	..	8
——— trulliferum	1839	57	..
——— bicallosum	1842	..	14
——— ———	1843	12	..
——— Forbesii	1839	..	149
——— ensatum	1842	..	15

		pl.	misc.
Oncidium excavatum	1839	..	150
——— sphacelatum	1842	30	..
——— sphegiferum	1843	..	23
——— sanguineum	1839	..	68
——— nanum	1842	..	30
——— unicorne	1839	..	76
——— uniflorum	1843	43	..
——— urophyllum	1842	54	..
——— carinatum	1840	..	45
——— intermedium	1840	..	46
——— barbatum	1842	..	74
——— unicornutum	1840	..	47
——— Carthaginense	1840	..	215
——— pelicanum	1840	..	216
——— macrantherum	1841	..	33
——— Wrayæ	1841	..	57
——— monoceras	1841	..	160
——— Barkeri	1841	..	174
——— nebulosum	1841	..	175
——— Huntianum	1840	..	137
——— pachyphyllum	1840	..	138
——— Insleayi	1840	..	21
——— incurvum	1840	..	174
——— leucochilum	1840	..	79
——— ornithorhynchum	1840	10	95
——— ampliatum	1840	..	97
——— microchilum	1840	..	193
——— ———	1843	23	..
——— Wentworthianum	1840	..	194
——— pallidum	1840	..	108
——— ramosum	1840	..	154
——— suave	1843	..	22
——— stramineum	1840	14	..
——— ———	1838	..	63
Ophelia purpurascens	1840	..	158
Opoidia galbanifera	1839	..	107
Ornithogalum geminiflorum	1838	..	100
——— divaricatum	1841	..	111
——— ———	1842	28	..
——— montanum	1838	28	..
Oxalis Darvalliana	1840	..	11
——— Ottonis	1840	..	213
——— fruticosa	1841	41	..
——— rubrocincta	1842	64	..
Oxyanthus versicolor	1840	..	150
Oxylobium capitatum	1841	..	80
——— ———	1843	16	..
——— obovatum	1843	36	49
Pæonia (Onæpia) Brownii	1839	30	..
Panætia fulva	1838	..	83
Papaver amoenum	1839	..	80
Passiflora hispidula	1840	..	3
——— ———	1840	..	16
——— onychina	1838	21	1
——— verrucifera	1840	52	105
Patersonia sapphirina	1839	60	..
Paxtonia rosea	1838	60	113
Pedicularis megalantha	1842	..	57
——— pyramidata	1841	..	155
Pentlandia miniata	1839	68	..
Pentstemon barbatum carneum	1839	21	..
——— crassifolium	1838	16	..
——— gentianoides	1838	3	..
Peristeria guttata	1840	..	33
——— Humboldti	1843	18	..
Peristylus goodyeroides	1840	..	187

		pl.	misc.
Pernettya angustifolia	1840	63	..
Pesomeria tetragona	1838	..	6
Phacelia fimbriata	1841	..	126
Phaius grandifolius	1839	..	40
——— bicolor	1839	..	91
——— Wallichii	1839	..	58
——— albus	1838	33	..
Phalænopsis amabilis	1838	34	..
Pharbitis Learii	1841	56	..
——— ostrina	1842	51	..
Philadelphus hirsutus	1838	14	..
——— Gordonianus	1838	..	23
——— ———	1839	32	..
——— triflorus	1838	..	51
——— laxus	1839	39	..
——— mexicanus	1840	..	70
——— ———	1841	..	118
——— ———	1842	38	..
Philibertia grandiflora	1843	13	..
Phlomis simplex	1841	..	102
Phlox Van Houtte's	1843	5	..
Pholidota articulata	1839	..	57
——— undulata	1841	..	19
——— conchoidea	1840	..	198
Phycella biflora	1838	..	72
Physinga prostrata	1838	..	45
Physosiphon carinatus	1838	..	132
Picris asperrima	1838	..	108
——— barbarorum	1838	..	107
Pieris ovalifolia	1842	..	50
Pimelia incana	1838	24	..
——— crinita	1838	..	109
——— spectabilis	1841	33	18
——— prostrata	1839	..	81
Pinus oocarpa	1839	..	23
——— Llaveana	1839	..	24
——— Hartwegii	1839	..	95
——— Devoniana	1839	..	96
——— Russelliana	1839	..	97
——— macrophylla	1839	..	98
——— pseudostrobus	1839	..	99
——— apulcensis	1839	..	100
——— filifolia	1840	..	132
——— Coulteri	1840	..	133
Pisonia Olfersiana	1841	..	34
Pitcairnia undulata	1843	..	44
——— micrantha	1843	..	57
Pittosporum bicolor	1843	..	27
Placea ornata	1841	50	..
Plagianthus Lampenii	1838	..	25
Pleurothallis circumplexa	1838	..	27
——— marginata	1838	..	70
——— aphthosa	1838	..	71
——— vittata	1838	..	133
——— ophiocephala	1838	..	48
——— stenopetala	1838	..	182
——— muscoidea	1839	..	165
——— pectinata	1839	..	1
——— recurva	1841	..	1
——— luteola	1841	..	2
——— picta	1841	..	182
——— gelida	1841	..	186
——— sicaria	1841	..	187
——— fragilis	1841	..	188
——— fœtens	1843	..	7
——— peduncularis	1841	..	64
——— ———	1843	..	62

		pl.	misc.
Pleurothallis breviflora	1841	..	125
——— strupifolia	1839	..	3
——— bicarinata	1839	..	11
——— scabripes	1839	..	155
——— pachyglossa	1840	..	146
——— seriata	1840	..	175
——— Smithiana	1843	..	79
——— villosa	1840	..	40
——— ciliata	1840	..	41
Podolepis contorta	1838	..	120
Podolobium berberifolium	1841	..	89
Pogonia plicata	1841	..	129
Polemonium cœruleum grandiflorum	1840	..	76
Polygonum amplexicaule	1838	..	117
——— ———	1839	46	..
——— molle	1841	..	66
Polystachya zeylanica	1838	..	144
——— clavata	1842	..	71
——— ramulosa	1838	..	142
——— luteola	1838	..	143
——— reflexa	1841	..	43
——— affinis	1839	..	44
——— bracteosa	1840	..	102
——— cerea	1840	..	208
Ponera graminifolia	1839	..	15
——— ———	1842	..	17
——— juncifolia	1842	..	17
——— striata	1842	..	17
Populus balsamifera	1843	..	29
——— tristis	1843	..	30
——— longifolia	1843	..	31
——— candicans	1843	..	32
——— pseudo balsamifera	1843	..	33
——— laurifolia	1843	..	34
——— suaveolens	1843	..	35
Portulaca Thellusonii	1839	..	114
——— ———	1840	31	..
——— splendens	1843	34	..
Posoqueria versicolor	1841	26	..
Potentilla insignis	1841	37	..
Pothos podophyllus	1841	..	176
Primula denticulata	1842	47	..
Pronaya elegans	1840	..	200
Protea longiflora	1841	..	136
Psithyrisma	1843	..	135
Psoralea obcordata	1838	..	57
——— brachytropis	1841	..	76
Puya Altensteinii	1840	..	210
——— cœrulea	1840	11	..
——— heterophylla	1840	71	..
——— recurvata	1843	..	43
Quekettia microscopica	1839	..	6
Quercus acutifolia	1840	..	160
——— reticulata	1840	..	161
——— crassipes	1840	..	162
——— spicata	1840	..	163
——— mexicana	1840	..	164
——— glaucescens	1840	..	165
——— sideroxyla	1840	..	166
——— lancifolia	1840	..	167
——— petiolaris	1840	..	168
——— mannifera	1840	..	72
——— regia	1840	..	73
——— Brantii	1840	..	74
Randia oxypetala	1843	..	92
Renanthera matutina	1843	41	3

		pl.	misc.
Rhododendron Rollissonii	1843	25	..
——— Aprilis	1843	62	..
Rhodorhiza	1841	..	152
Rhodostoma gardenioides	1843	..	47
Ribes Menziesii	1838	..	52
Rigidella flammea	1840	16	64
——— immaculata	1841	68	133
Rivea tiliæfolia	1841	..	29
Rodriguezia crispa	1840	54	..
——— ———	1839	..	139
——— carnea	1843	..	113
——— laxiflora	1839	..	138
——— maculata	1840	..	218
Roepera aurantiaca	1838	..	105
Rondeletia longiflora	1843	42	..
Roscöea purpurea	1840	61	..
——— lutea	1841	..	159
Saccolabium gemmatum	1838	..	88
——— densiflorum	1838	..	103
——— Blumei	1841	..	115
——— calceolare	1838	..	139
——— bifidum	1838	..	5
——— compressum	1840	..	5
——— micranthum	1839	..	52
——— ochraceum	1842	..	4
Salvia Moorcroftii	1839	..	127
——— patens	1839	23	48
——— excelsa	1841	..	185
——— tubiformis	1841	44	40
——— confertiflora	1839	29	..
——— canescens	1838	36	..
——— hians	1840	..	115
——— ———	1841	39	..
——— prunelloides	1840	..	207
——— Regla	1840	..	205
——— ———	1841	14	..
Saponaria perfoliata	1839	..	83
Sarcanthus filiformis	1842	..	69
——— pallidus	1840	..	185
——— oxyphyllus	1840	..	123
Sarcochilus olivaceus	1839	..	27
——— parviflorus	1838	..	50
——— ——— unguiculatus	1840	..	143
Satyrium papillosum	1838	..	154
——— carneum	1838	..	155
——— candidum	1838	..	153
——— pustulatum	1840	18	..
Saussurea pulchella	1842	18	..
Saxifraga ciliata	1843	65	..
Scaphyglottis reflexa	1839	..	21
——— stellata	1839	..	60
Scelochilus Ottonis	1842	..	23
Schizanthus candidus	1843	..	45
Schizonotus tomentosus	1840	..	156
Schomburgkia marginata	1839	..	12
——— tibicinis	1841	..	119
Schubertia graveolens	1838	..	2
Schweiggeria pauciflora	1841	40	..
Scilla pratensis	1839	63	..
——— Peruviana, var. discolor	1843	48	..
Scleroon oleinum	1843	..	98
Scutellaria splendens	1841	..	139
Sedum miserum	1838	..	122
——— multicaule	1840	..	124
Senecio populifolius, lacteus	1839	45	..
——— cruentus	1839	7	..
Senecio odoratus	1839	..	111
Severinia brevifolia	1841	..	52
Sieversia elata	1842	..	54
Sisyrinchium junceum	1840	..	12
——— majale	1841	..	37
Sobralia macrantha	1842	..	65
——— sessilis	1841	17	11
Solanum betaceum	1840	..	65
——— ———	1840	..	61
——— candidum	1839	..	125
——— concavum	1842	..	60
——— macrantherum	1840	..	181
——— ———	1841	7	..
——— Rossii	1840	..	34
——— uncinellum	1840	15	..
——— vernicatum	1838	..	137
Sollya linearis	1839	..	132
——— ———	1840	3	..
Sophronitis violacea	1840	..	18
Sowerbæa laxiflora	1841	10	..
Specklinia orbicularis	1838	..	41
——— ciliaris	1838	..	40
——— obovata	1839	..	137
Sphærolobium acuminatum	1843	..	77
Spiræa barbata	1838	..	65
——— fissa	1842	..	1
——— Kamschatica	1841	4	..
——— lanceolata	1841	..	93
——— cuneifolia	1839	..	87
——— vacciniifolia	1839	..	88
——— ———	1840	17	..
——— rotundifolia	1840	..	159
——— laxiflora	1839	..	89
——— fissa	1840	..	170
Spiranthes cerina	1842	..	19
——— diuretica	1838	..	119
——— Lindleyana	1841	..	38
——— rosulata	1843	..	84
Spironema fragrans	1840	47	48
Sprekelia cybister	1840	33	..
——— glauca	1840	..	104
——— ———	1841	16	..
Stanhopea quadricornis	1838	5	..
——— Lindleyi	1838	..	4
——— aurea	1841	..	31
——— tigrina	1839	1	..
——— oculata	1839	..	113
——— ———	1840	..	80
——— graveolens	1840	..	125
——— guttulata	1843	..	116
——— maculosa	1840	..	28
——— Martiana	1840	..	109
——— ———	1841	..	147
——— ——— var. bicolor	1843	44	81
——— Wardii	1840	..	147
Statice arborea	1839	6	..
——— pectinata	1840	65	..
——— monopetala	1841	54	..
——— ——— var. denudata	1842	59	..
Stelis argentata	1842	..	78
——— crassifolia	1842	..	12
——— atropurpurea	1842	..	100
——— tristyla	1838	..	69
Stenia pallida	1838	20	..
Stenochilus longifolius	1839	..	115
——— incanus	1839	..	116
Stenomesson eustephioides	1843	..	91

		pl.	misc.
Stenomesson vitellinum .	1843	2	..
——— aurantiacum	1843	..	90
Stenocoryne longicornis .	1843	..	68
Stevia fascicularis . .	1838	59	..
Stigmaphyllon ciliatum .	1841	..	121
——— ——— jatrophæfolium	1843	..	80
Strobilanthes scabra .	1841	32	..
Stylidium proliferum .	1841	..	78
——— pilosum . .	1841	..	79
——— ——— . .	1842	41	..
——— Brunonianum .	1841	..	95
——— ——— .	1842	15	..
Tabernæmontana dichotoma	1841	53	..
Talinum teretifolium .	1843	1	..
Tanacetum longifolium .	1840	..	78
Tetranema mexicanum .	1843	52	..
Thalictrum cultratum .	1840	..	77
Thomasia canescens .	1840	..	203
Thuja filiformis . .	1842	20	..
Thysanotus intricatus .	1838	..	111
——— ——— .	1840	4	..
——— tenuis . .	1838	50	..
——— proliferus .	1838	8	..
——— isantherus .	1839	..	75
Tigridia violacea . .	1841	..	134
Tillandsia Gardneri . .	1842	63	..
——— rubida . .	1842	63	..
Tradescantia iridescens .	1840	34	160
——— tumida . .	1840	42	..
Trichinium alopecuroideum	1839	28	..
——— Manglesii (note)	1839	28	..
——— Stirlingii (note)	1839	28	..
Trichocentron iridifolium	1838	..	178
——— recurvum	1843	..	17
——— candidum	1843	..	18
Trichonema edule . .	1842	..	99
Trichosma suavis . .	1842	21	..
Trifolium involucratum .	1840	..	116
Trigonidium acuminatum .	1838	..	136
Trigonidium Egertonianum	1838	..	135
——— ———	1840	..	100
——— ringens .	1840	..	121
——— tenue . .	1839	..	59
Triptilion spinosum . .	1840	..	129
——— ——— . .	1841	22	..
Triteleia aurea . .	1841	..	161
Tritonia fucata . .	1838	35	..
Trollius acaulis . .	1842	..	56
——— ——— . .	1843	32	..
Tropæolum azureum .	1842	65	..
Trymalium odoratissimum	1838	..	30
Tulipa Gesneriana . .	1838	46	..
——— maleolens . .	1839	66	..
Turræa lobata . .	1843	..	86
Urceolina pendula . .	1838	..	151
Valeriana Napus . .	1840	..	180
Van Houtte's Phlox .	1843	5	..
Vanilla bicolor . .	1838	..	58
——— Palmarum . .	1842	..	75
Vanda congesta . .	1839	..	94
——— cristata . .	1842	48	..
——— teres . . .	1842	..	25
——— violacea . .	1841	..	32
——— lamellata . .	1838	..	125
Veronica diosmæfolia .	1840	..	30
——— formosa . .	1839	..	85
——— nivea . .	1842	..	43
Verticordia densiflora .	1843	..	106
Victoria regia . .	1838	..	13
Viscaria oculata . .	1843	53	..
Vriesia psittacina . .	1843	10	..
Weinmannia venosa . .	1840	..	36
Xerotes longifolia . .	1839	3	..
Zichya tricolor . .	1839	52	..
——— angustifolia (note)	1839	52	..
——— villosa . .	1841	..	81
——— ——— . .	1842	68	..
Zigadenus glaucus . .	1838	67	..
Zygopetalum africanum .	1840	..	139

PART II.—GENERAL INTELLIGENCE, AND ENUMERATIONS OF SPECIES.

Acineta Humboldtii, 1843, *misc. p.* 68.
——— Barkeri, 1843, *misc. p.* 68.
Agardh, Recensio generis Pteridis, noticed, 1840, *misc. p.* 13.
Albumen, remarks on, by Drs. Schleiden and Vogel, 1842, *misc. p.* 45.
Amelanchier canadensis, 1842, *misc. p.* 16.
American Quackery, 1842, *misc. p.* 16.
Amianthium muscætoxicum, 1842, *misc. p.* 14.
Astilbe decandra, 1842, *misc. p.* 16.
Bæckea, its structure, 1842, *t.* 10.
Balsamineæ, their affinities and structure, 1840, *t.* 8.
Balsam Poplars, 1843, *misc. p.* 20.
Bauer, his sale, 1841, *misc. p.* 35.
Beet Root, observations on, by M. Decaisne, 1839, *misc. p.* 28.
Bifrenaria, sp. described, 1843, *misc. p.* 51.
Boykinia aconitifolia, 1842, *misc. p.* 13.
Brown, Robert, a Copley medal awarded to him, 1840, *misc. p.* 3.
Campanula, its collecting hairs, 1840, *misc. p.* 54.
Cape of Good Hope, notes on its vegetation, 1832, *misc. p.* 52.
Circulation of the latex in plants, 1839, *misc. p.* 48.
Cirrhopetalum, sp. described, 1843, *t.* 49.
Clestines in plants, 1840, *misc. p.* 13.
Clethra acuminata, 1842, *misc. p.* 13.
Clerodendron, structure of its ovary, 1842, *t.* 7.
Coburgia, species described, 1842, *misc. p.* 52.
Colax, sp. described, 1843, *misc. p.* 50.
Cordage plants, some account of, 1839, *misc. p.* 5.

Crocuses, described, 1843, *misc. p.* 26.
Cunningham, Allan, his death, 1840, *misc. p.* 1.
Cyclamens, European, described, 1842, *misc. p.* 26.
Dendrobium, sp. described, 1843, *t.* 28.
Dietrich, Synopsis Plantarum seu Enumeratio Systematica, &c. 1842, *misc. p.* 7.
Diphylleia cymosa, 1842, *misc. p.* 13.
Encyclia, characters of, 1842, *misc. p.* 28.
Endlicher's Genera Plantarum, 1839, *misc. p.* 40.
——— Genera Plantarum, noticed, 1840, *misc. p.* 31.
——— theory of vegetable fertilization, 1839, *misc. p.* 4.
——— Enchiridion Botanicum, 1841, *misc. p.* 85.
Epidendrum, 1842, *misc. p.* 27.
——— sp. described, 1842, *t.* 50.
Extracarpellary attachment of seeds, 1841, *misc. p.* 25.
Flora de Filipinas, Blanco's, 1839, *misc. p.* 75.
Frankincense tree of Sierra Leone, 1839, *misc. p.* 30.
Frozen Potatoes, 1839, *misc. p.* 12.
Gentianaceæ, Grisebach's Monograph of, 1839, *misc. p.* 57.
Geum radiatum, 1842, *misc. p.* 15.
Glycine sinensis, 1840, *misc. p.* 41.
Gray's Notes of a botanical excursion to the mountains of N. Carolina, 1842, *misc. p.* 11.
Guatemala Orchidaceæ, 1840, *misc. p.* 43.
Gum, its motion in plants, 1840, *misc. p.* 14.
Hair-like roots of Cotyledon cristatum, 1839, *misc. p.* 84,
Hedyotis serpyllifolia, 1842, *misc. p.* 12.
Heuchera villosa, 1842, *misc. p.* 11.
Horse-chesnuts, poisonous, 1839, *misc. p.* 23.
Horticultural Society's Garden, 1839, *misc. p.* 17.
Hymenocallis and Pancratium, the distinction between, 1840, *misc. p.* 12.
Koordistan oaks, 1841, *misc. p.* 24.
Kunth, Enumeratio plantarum, Vol. III. 1842, *misc. p.* 6.
Lantana, list of sp. of, 1843, *misc. p.* 53.
Lælia, sp. described, 1842, *t.* 62.
Ledebour's Flora Rossica, 1842, *misc. p.* 6.
Leiophylla, 1842, *misc. p.* 15.
Link, Klotzsch, and Otto, Icones plantarum, 1840, *misc. p.* 87.
Leptotes bicolor, its fruit aromatic, 1840, *misc. p.* 14.
Lomandra, note upon, 1839, *sub t.* 3.
Lycaste, sp. described, 1843, *misc. p.* 15.
Magnolia Fraseri, 1842, *misc. p.* 12.
Maxillaria, genus defined, 1843, *misc. p.* 10.
Monstrum Planti, 1843, *misc. p.* 1.
Mormodes, sp. described, 1843, *t.* 33.
Moquin Tandon, Chenopodearum Monographica enumeratio, 1840, *misc. p.* 78.
Myrtle, derivation of the name, 1839, *misc. p.* 28.
Oaks of Koordistan, 1840, *misc. p.* 39.
Orchidaceæ of Brazil, their habits, 1839, *misc. p.* 42, 21.
——— of Australia, Cunningham's notes on, 1843, *t.* 37.
——— of Guatemala, 1840, *misc. p.* 43.
Oxycoccus erectus, 1842, *misc. p.* 16.
Pancratium and Hymenocallis, the distinction between, 1840, *misc. p.* 12.
Paphinia cristata, 1843, *misc. p.* 14.
Peristeria, 1843, *misc. p.* 66.
——— sp. described, 1843, *misc. p.* 67.
Perrine on acclimatising tropical plants in the United States, 1839, *misc. p.* 5.
Physostegia virginiana, its catalepsy explained, 1840, *misc. p.* 31.
Pinetum Woburnense, 1839, *misc. p.* 23.
Pisonai tree, 1839, *misc. p.* 18.
Plant's Vegetable Monster, 1843, *misc. p.* 1.
Pleurothallis, sp. described, 1842, *misc. p.* 67.
Pollen covered with starch, 1839, *misc. p.* 74.
Primary distribution of the Vegetable Kingdom, 1839, *misc. p.* 76.
Proceedings of the Royal Asiatic Society, 1839, *misc. p.* 24.
Promenæa, sp. described, 1843, *misc. p.* 13.
Pyrularia oleifera, 1842, *misc. p.* 13.
Ribes, list of hardy sp. 1843, *misc. p.* 37.
Royle's Illustrations of the Botany, &c. of the Himalayas, 1839, *misc. p.* 26.
Salep roots, their anatomy, 1841, *misc. p.* 16.
Schauer, Chamælaucieæ, 1841, *misc. p.* 88.
Sarcoglottis, sp. described, 1843, *misc. p.* 35.
Scuticaria Steelii, 1843, *misc. p.* 14.
Schizanthus, sp. described, 1843, *t.* 45.
Seeds, extracarpellary attachment, 1840, *misc. p.* 25.
Siebold's Flora Japonica, noticed, 1840, *misc. p.* 4.
Solidago glomerata, 1842, *misc. p.* 15.
Stanhopea, sp. described, 1843, *t.* 44.
Starch on the outside of pollen grains, 1839, *misc. p.* 74.
Starch, new view concerning, 1841, *misc. p.* 48.
Tasmannian plants, 1840, *misc. p.* 16.
Torrey and Gray's Flora of North America, 1839, *misc. p.* 42. 2.
——— 1840, *misc. p.* 79.
——— 1841, *misc. p.* 74.
Tragacanth, source of the drug, 1840, *misc. p.* 38.
Van Diemen's Land plants, 1840, *misc. p.* 16.
Vanilla, first produced in England, 1840, *misc. p.* 66.
Victoria regia, note upon, 1840, *misc. p.* 62.
Warrea tricolor, 1843, *misc. p.* 14.
Wight's Illustrations of Indian Botany, 1839, *misc. p.* 29.
Wistaria sinensis, 1840, *misc.* p. 14.

NORMAN AND SKEEN, PRINTERS, MAIDEN LANE, COVENT GARDEN.

Systematical Index v. 6

2.1 Schizanthus candidus 45
3.1 Crocus insularis 21
4.1 Elæagnus parvifolius 51
5.1 Echium petræum 26
Phlox var. 5
Ipomœa cymosa 24
Erythrochiton brasiliensis 47
Echites atropurpurea 27
Rondeletia longiflora 42
Campanula Loeflingii 19
5.2 Philibertia grandiflora 13
6.1 Narcissus var. 38
Hedysmum vitellinum
Vriesia psittacina 10[2]
Alstrœmeria lineatifolia 58
Agapanthus umbellatus 7
Lilium testaceum 11
Scilla peruviana 48
8.1 Marcetia excoriata 31
Centradenia rosea 20
10.1 Oxylobium capitatum 16
——— obovatum 36
Rhododendron Rollissonii 25
——— var. 62
Gomarostaphylis arbutoides 30
10.2 Saxifraga ciliata 65
10.5 Viscaria oculata 53
11.1 Portulaca splendens 34
Solanum torvifolium
12.1 Hypocalymma robustum 8[1]
13.3 Hibbertia perfoliata 64
13.6 Trollius acaulis 32
14.2 Becium bicolor 15
14.2 Achimenes hirsuta 55
Tetranema mexicanum 52
16.1 Eleutherine anomala 57
16.2 Candollea tetrandra 50
16.6 Hovea racemulosa 4
Bossiæa paucifolia 63
Cytisus Weldenii 40
17.4 Indigofera stachyodes 14
19.5 Barnadesia rosea 29
20.1 Cirrhopetalum chinense 49
——— auratum 61
Dendrobium sanguinolentum 6
——— rhombeum 17
——— taurinum 28
——— cucumerinum 37
——— aqueum 54
——— Tuckeri 60
Lycaste plana 35
Cycnoches pentadactylon 22
Mormodes luxatum 33
——— aromaticum 56
Clowesia rosea 39
Catasetum planiceps 9
Stanhopea Martiana 44
Peristeria Humboldti 18
Oncidium bicallosum 12
——— microchilum 23
——— uniflorum 43
——— bicolor 66
Renanthera matutina 41
Odontoglossum citrosmum 3
21.7 Dracæna longifolia 59
23.1 Acacia spectabilis 46